

Performance of the Massachusetts Health Care System

Annual Report
October 2019



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October 2019

CENTER FOR HEALTH INFORMATION AND ANALYSIS



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2019 Annual Report Key Findings

THCE totaled \$60.9 billion in 2018, or \$8,827 per capita; this represents an increase of 3.1% from 2017, equal to the health care cost growth benchmark.

Hospital services, physician, and pharmacy expenditures continued to be the largest service categories of THCE spending.

Pharmacy spending totaled \$9.9 billion in 2018, a 5.8% increase from 2017. Net of prescription drug rebates, pharmacy spending was \$8.1 billion, an increase of 3.6% from the prior year.

The proportion of commercial members enrolled in high deductible health plans (31.5%) continued to increase across most market sectors in 2018.

Commercial member cost-sharing and premiums continued to increase at a faster rate than wages and inflation.

Adoption of APMs increased within MassHealth in 2018 with the rollout of ACOs.

Executive Summary

Each year, pursuant to M.G.L. c. 12C, the Center for Health Information and Analysis (CHIA) examines the performance of the Massachusetts health care system and reports on trends in coverage, cost, and quality indicators to inform policymaking.

Total Health Care Expenditures

In 2018, Total Health Care Expenditures (THCE) in Massachusetts were \$60.9 billion. THCE per capita grew 3.1%, to \$8,827 per resident, matching the benchmark set by the Health Policy Commission for 2018. The benchmark for previous years had been 3.6%.

Spending growth accelerated in 2018 for the largest service categories, with the exception of hospital outpatient expenditures, which slowed from 5.1% growth in 2017 to a 3.8% increase in 2018. As in prior years, gross prescription drug spending accounted for the majority of the growth in THCE.

Commercial Insurance

Total expenditures for private commercial health plans, which comprised nearly 40% of THCE, grew 3.3% in 2018, matching the trend for 2017. Out-of-pocket costs and premiums for fully-insured plans, however, have grown substantially faster during the past two years—approximately twice the rate of inflation and wages.

Consistent with prior years, spending for physician services accounted for the largest share of total commercial expenditures in 2018. Total expenditures grew fastest for physician services and prescription drugs, while growth in hospital outpatient expenditures moderated following rapid increases in prior years.

Increased enrollment in high deductible health plans (HDHPs) continued across the commercial market, with over 1.2 million members covered by such plans in 2018. HDHP adoption continued to be disproportionately

prevalent among members covered by smaller company employer-sponsored insurance (ESI) plans as well as unsubsidized individual purchasers. In 2018, over 60% of small- and mid-size ESI plan members had an HDHP, as did over 80% of unsubsidized individual purchasers. These segments of the market also experienced the highest out-of-pocket costs as well as growth rates in excess of 7%.

Premiums for fully-insured plans grew at a faster rate in 2018 (+5.6%) than 2017. For ConnectorCare plans, the Commonwealth adopted an approach known as premium “silver loading” in 2018 due to the elimination of federal cost-sharing reduction (CSR) subsidies. This resulted in significantly elevated gross premiums that, in turn, increased premium tax credits and offset the loss of these federal subsidies. This approach ultimately helped hold the portion of premiums owed by ConnectorCare members, as well as their cost-sharing obligations, stable.

Public Insurance Programs

Trends in Medicare spending—which encompassed nearly 30% of THCE—diverged from previous years, growing 5.7%. This was faster than the 2.3% growth in 2017 as well as the national trend (4.4%) in 2018, even as the Commonwealth saw slightly slower growth in Medicare beneficiaries than the rest of the nation.

Among Medicare beneficiaries, hospital inpatient services accounted for the largest service category in 2018, and increased by 4.5% in 2018. Total expenditures rose fastest, however, for hospital outpatient services and prescription drugs, both of which grew by more than 8.5%.

Total MassHealth expenditures, which represented one quarter of THCE, were flat in 2018; MassHealth membership declined during this period. In March 2018, MassHealth launched its Accountable Care Organization (ACO) program and shifted more than 60% of its members with primary medical coverage to an ACO.

Coordination and Quality

Global budget arrangements are intended to incentivize primary care providers to manage their patients’ health care across the continuum while controlling costs and meeting quality targets. Alternative payment methods (APMs) between payers and provider organizations promote these objectives; however, in 2018, APM adoption continued to decline slightly among commercial health plans, particularly among smaller plans. In addition, over half of the global budget arrangements in the commercial market (the predominant type of APM) limited provider accountability for certain services,

such as prescription drugs and behavioral health. The number of members covered under an APM within the Commonwealth's Medicaid population approximately doubled due to the implementation of MassHealth's ACO program.

Overall, adults in Massachusetts reported positive experiences with their primary care providers in 2018, rating providers highly on measures of communication and knowledge about their patients, consistent with prior years. Notably, patients scored their primary care experiences in the behavioral health domain 10 points higher in 2018 than in 2017, though this domain remained substantially lower than scores for all but one other category. •

Total Health Care Expenditures

KEY FINDINGS

Total health care expenditures grew 3.1% to \$8,827 per capita from 2017 to 2018.

Total commercial and Medicare spending grew from 2017 to 2018, while MassHealth spending was flat.

Hospital services, physician, and pharmacy expenditures continued to be the largest service categories of THCE spending.

Prescription drug rebates are estimated to have grown over the past three years.

Total Health Care Expenditures

A key provision of the Massachusetts health care cost containment law, Chapter 224 of the Acts of 2012, was the establishment of a benchmark against which the annual change in health care spending growth is evaluated.

The Center for Health Information and Analysis (CHIA) is charged with calculating Total Health Care Expenditures (THCE) and comparing its per capita growth with the health care cost growth benchmark, as determined by the Health Policy Commission.

From 2013 to 2017, the health care cost growth benchmark was set at 3.6%. For the 2017 to 2018 performance period, the benchmark was set at 3.1%.¹

THCE encompasses health care expenditures for Massachusetts residents from public and private sources, including all categories of medical expenses and all non-claims related payments to providers; all patient cost-sharing

amounts, such as deductibles and copayments; and the cost of administering private health insurance (called the net cost of private health insurance or NCPHI).²

It does not include out-of-pocket payments for goods and services not covered by insurance, such as over-the-counter medicines, and it also excludes other categories of expenditures such as vision and dental care.

Each year, CHIA publishes an initial assessment of THCE based on data with at least 60 days of claims run-out for the previous calendar year, which includes payers' estimates for claims completion and for quality and performance settlements. Final THCE is published the following year, based on final data which is submitted 17 months after the end of the performance year.

This report provides final results for the calendar year 2017 performance period and initial results for 2018. •

Total Health Care Expenditures

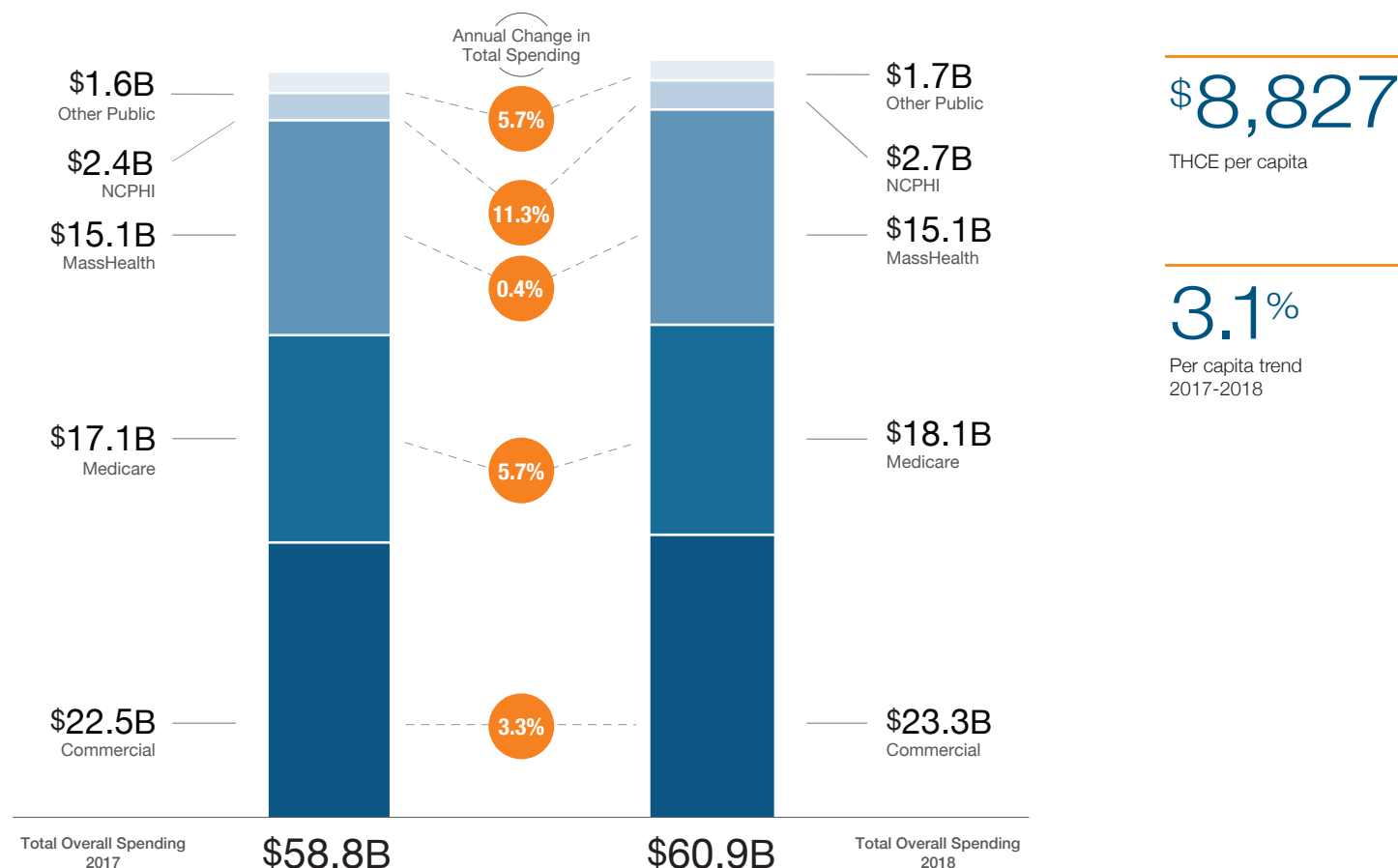
Massachusetts THCE totaled \$60.9 billion in 2018. This represents an increase of \$2.1 billion from 2017, during which the state's population grew by 0.6%. THCE spending per resident grew 3.1% to \$8,827 per capita, matching the 3.1% cost growth benchmark set by the Health Policy Commission.

Total commercial health care spending, which comprised 38.2% of THCE, grew 3.3% to \$23.3 billion. Commercial membership remained generally flat during this period.

Medicare spending (29.7% of total spending) increased by 5.7% to \$18.1 billion, accompanied by enrollment growth, particularly among Medicare Advantage plans. MassHealth (24.8% of total spending) expenditures were flat, increasing by 0.4% to \$15.1 billion in 2018. Members with MassHealth coverage also declined from 2017 to 2018.

NCPHI, which measures the private administrative costs of providing health insurance, comprised 4.5% of THCE, with total expenses growing by 11.3% from 2017 to 2018.

Components of Total Health Care Expenditures, 2017-2018



The initial estimate of Total Health Care Expenditures per capita growth is 3.1% for 2018, equal to the health care cost growth benchmark.

Source: Payer-reported data to CHIA and other public sources.

Notes: Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information.

Total Health Care Expenditures

Within the commercial insurance market, private payers offer a variety of insurance product types. Product types vary by the provider networks offered, the accessibility of in-network providers, and cost-sharing levels, among other factors.

The most common commercial insurance products in Massachusetts are Health Maintenance Organization (HMO) plans. These plans typically require that a member select a primary care provider (PCP) to manage the member's care. In 2018, HMO plans accounted for 43.3% of commercial spending. Overall spending on HMO products increased by 4.2% to \$10.1 billion in 2018, despite a slight decline in membership (-0.3%).

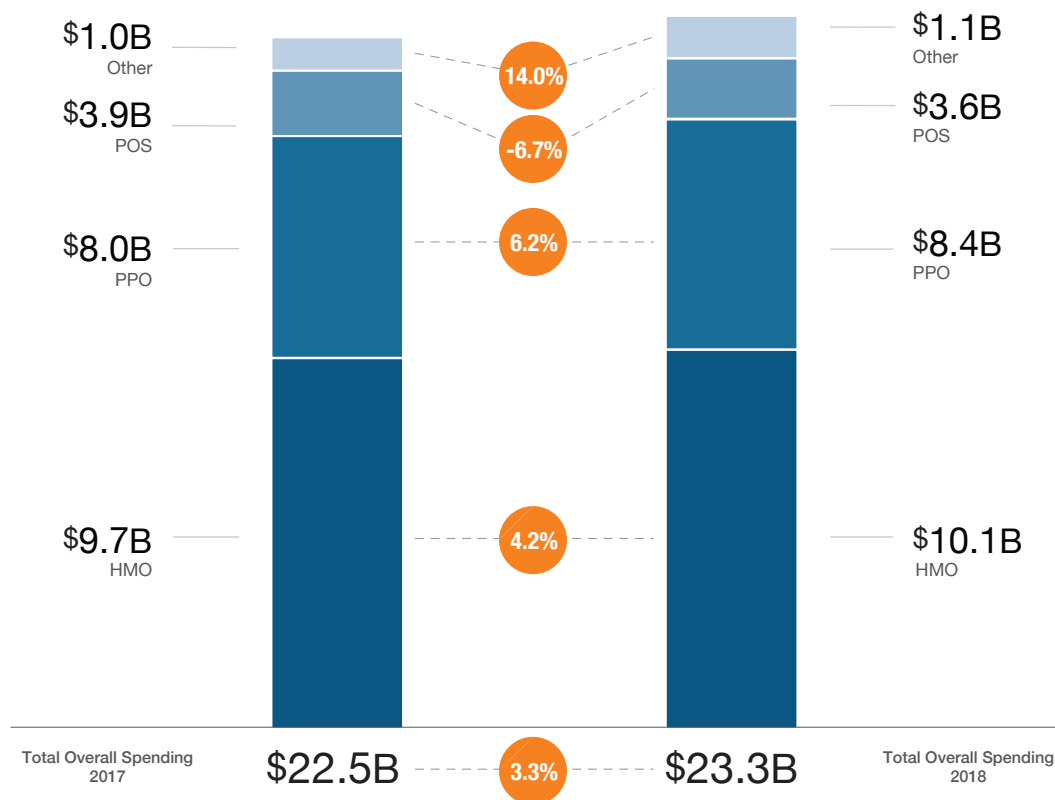
Spending for Preferred Provider Organization (PPO) plans, which allow members to schedule visits without a referral, increased by 6.2% to \$8.4 billion in 2018, accompanied by a 2.4% increase in membership.

Point-of-Service (POS) plans share characteristics of HMOs (requiring a PCP selection) and PPOs (allowing members to see out-of-network providers). POS plans were the only commercial product to experience a decrease in spending (-6.7%) in 2018, as enrollment in POS plans declined (-11.1%).

Components of Total Health Care Expenditures: Private Commercial Insurance by Product Type, 2017-2018



THCE COMPONENTS
Detailed View



Spending increased for HMO, PPO, and other plans but decreased for POS plans between 2017 and 2018.

Source: Payer-reported data to CHIA and other public sources.

Notes: For commercial partial-claim data, CHIA estimates spending by product type by multiplying the share of member months reported in TME data by the estimated total commercial partial-claim expenditures. Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information. These expenditures and trends reflect payments to providers, and are gross of prescription drug rebates received after the point of sale.

Total Health Care Expenditures

In 2018, approximately 1.1 million Massachusetts residents were enrolled in Medicare, the federal health insurance program for people ages 65 and over, as well as for individuals with long-term disabilities.

Within the Medicare program, eligible individuals choose between traditional Medicare coverage administered by the federal government (“traditional Medicare”), and Medicare Advantage products which are managed by private insurers. In the Commonwealth, most beneficiaries receive coverage through traditional Medicare (78.5% in 2018), though a growing share are enrolling in Medicare Advantage plans (21.5% in 2018—an uptick from 20.7% in 2017).

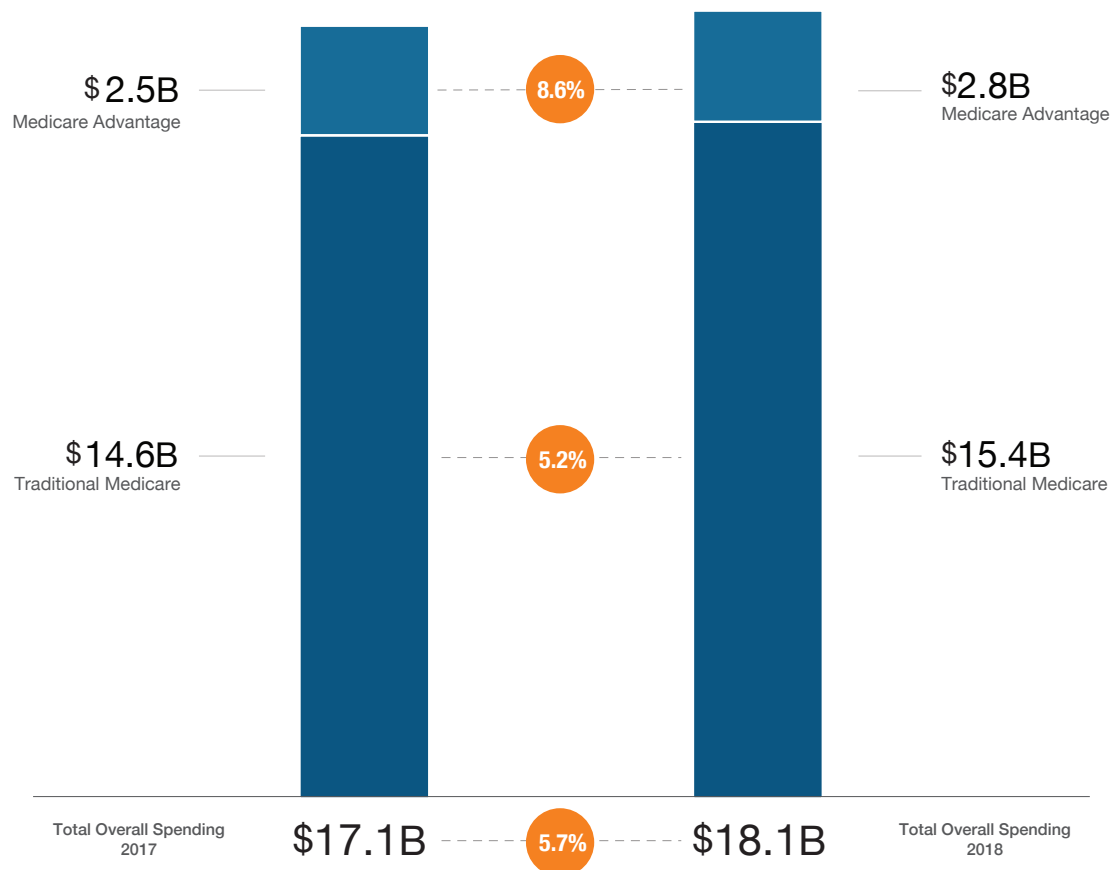
Total Medicare expenditures increased by 5.7% from \$17.1 billion in 2017 to \$18.1 billion in 2018. Growth was faster within Medicare Advantage (8.6%) than traditional Medicare (5.2%), in part due to faster enrollment growth in Medicare Advantage.

Total Medicare spending nationally, across both traditional and Medicare Advantage, grew more slowly than in Massachusetts, estimated at 4.4%.³

Components of Total Health Care Expenditures: Medicare Programs, 2017-2018



THCE COMPONENTS
Detailed View



Medicare Advantage expenditures increased by 8.6% while traditional Medicare spending increased by 5.2%.

Source: Payer-reported data to CHIA and other public sources.

Notes: For additional information on enrollment in Medicare programs, see CHIA's [Enrollment Trends](#) reporting. Traditional Medicare includes Part D expenditures for traditional Medicare enrollees. In THCE, beneficiaries that are dually eligible for Medicare and Medicaid and enroll in plans specifically designed to better coordinate their care (e.g., Senior Care Options) are included in MassHealth spending. As a result, the share of spending attributable to Medicare may not be comparable to figures published by other sources. Percent changes are based on non-rounded expenditure amounts. Please see [databook](#) for detailed information. These expenditures and trends reflect payments to providers, and are gross of prescription drug rebates received after the point of sale.

Total Health Care Expenditures

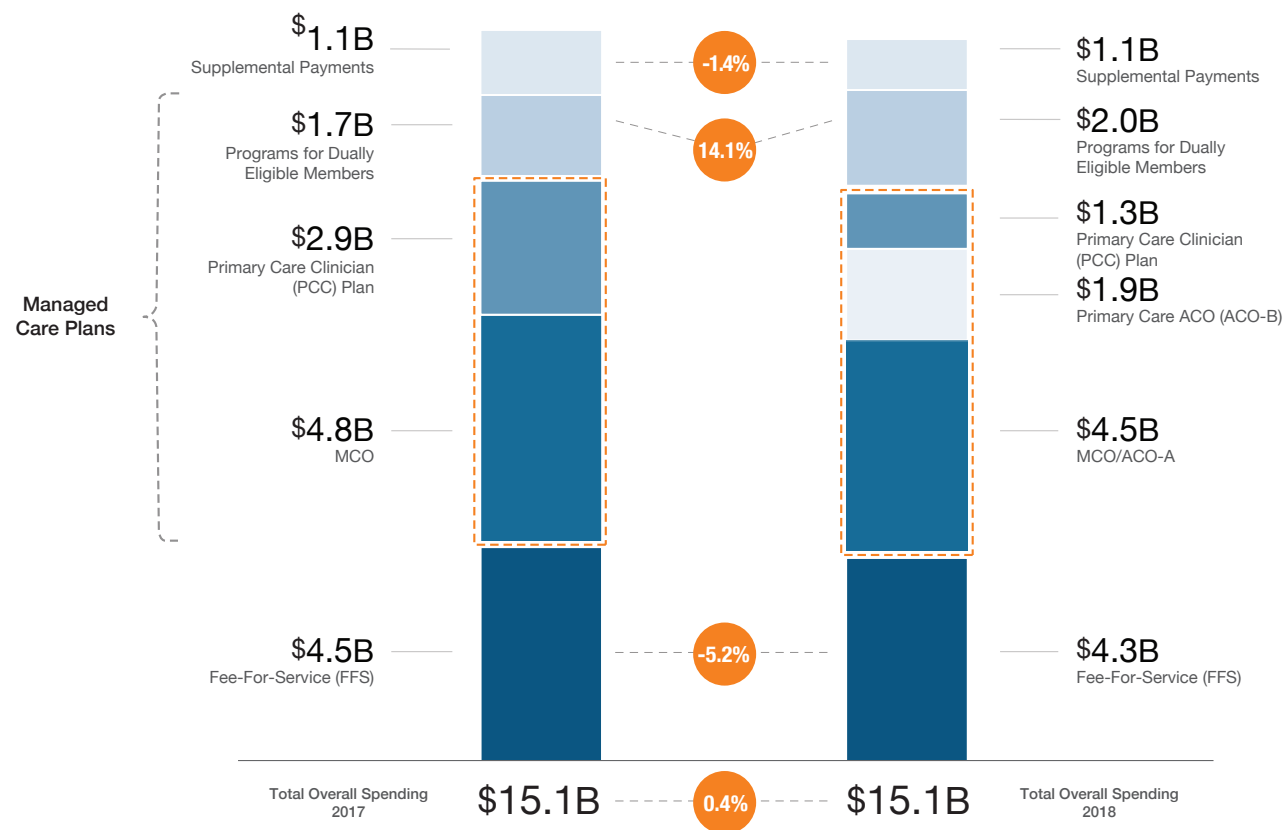
In 2018, approximately 1.8 million Massachusetts residents relied on MassHealth for either primary or partial/secondary medical coverage. From 2017 to 2018, the MassHealth program underwent substantial changes, shifting more than 60% of members with primary medical coverage to Accountable Care Organizations (ACOs).

MassHealth ACOs consist of Accountable Care Partnership Plans (ACO-A) and Primary Care ACOs (ACO-B). Members may also be enrolled in Managed Care Organizations (MCOs).

Overall MassHealth spending remained flat, growing 0.4%, though membership declined (-4.4% among members with primary medical coverage, and -5.5% among members with secondary or partial coverage).

With members enrolling in the new ACO plans, membership in the PCC Plan, MCOs, and FFS declined in 2018. In December 2018, 29.3% of MassHealth members were enrolled in an ACO-A plan, 19.3% in an ACO-B, and 8.5% were members of an MCO. FFS members comprised 31.5% of all MassHealth members, most of whom received partial or secondary coverage from MassHealth.

Components of Total Health Care Expenditures: MassHealth by Program Type, 2017-2018



Overall MassHealth spending was flat in 2018, rising 0.4%, as enrollment declined.

Source: Payer-reported data to CHIA and other public sources.

Notes: Members of MCO-Administered ACOs (ACO-C) are counted within the MCO population. Enrollment numbers are sourced from CHIA's enrollment trends reporting; for additional information please see CHIA's August 2019 [Enrollment Trends](#) report. MassHealth programs for dually eligible members include Senior Care Options (SCO), for members ages 65 and older; the Program of All-inclusive Care for the Elderly (PACE) for members 55 and older; and One Care, for members ages 21 to 64. Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information. These expenditures and trends reflect payments to providers, and are gross of prescription drug rebates received after the point of sale.

Total Health Care Expenditures

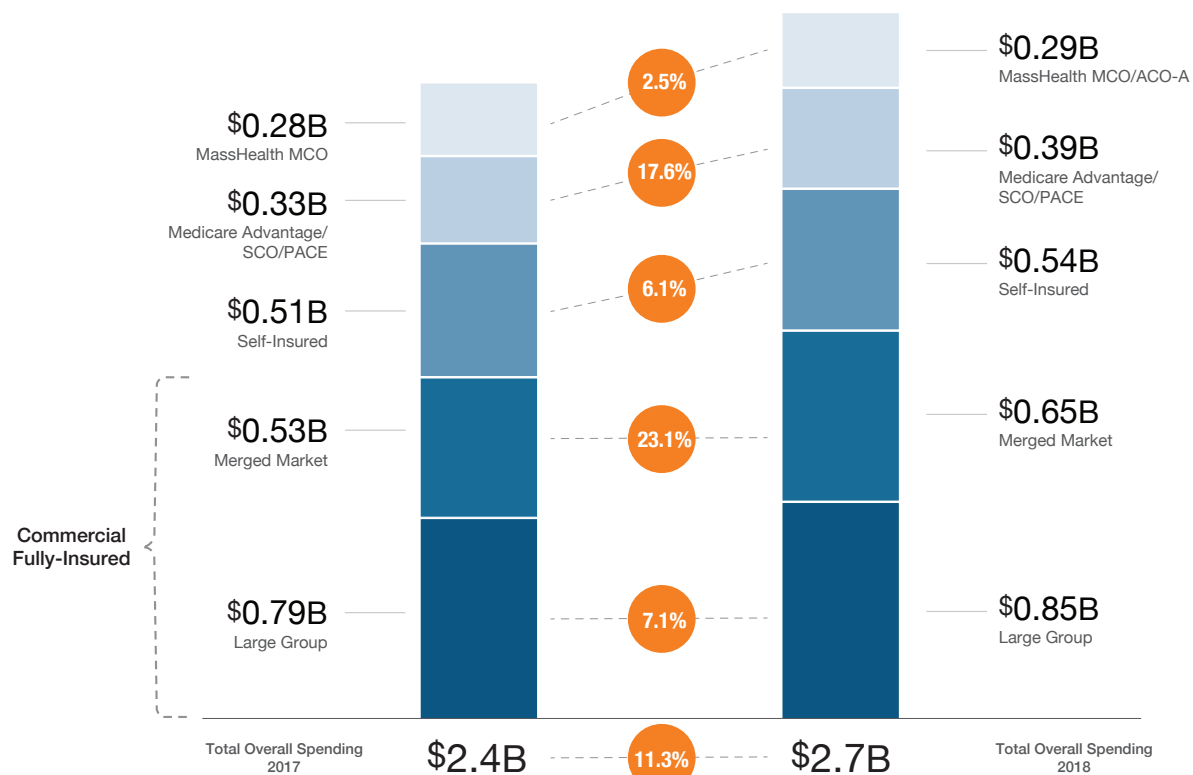
NCPHI captures the private administrative costs of health insurance for Massachusetts residents, and is broadly defined as the difference between the premiums that health plans receive on behalf of Massachusetts residents and the expenditures for covered benefits incurred for those same members.

In 2018, total spending for NCPHI increased by 11.3% to \$2.7 billion. This is the second consecutive year NCPHI increased, following a 10.5% increase in 2017. Expenses grew across all market sectors in 2018; the largest increase was in the merged market where spending increased by 23.1% between 2017 and 2018.

NCPHI balances retained by insurers are used to pay general administrative expenses, broker commissions, as well as taxes and fees. Additional remaining balances result in surpluses that may be used to build reserves for future claims.

State and federal medical loss ratio regulations limit the share of retained premiums that can be used for non-medical expenses. For more information on payer use of funds, see page 73.

Components of Total Health Care Expenditures: Net Cost of Private Health Insurance by Market Sector, 2017-2018



NCPHI increased by 11.3% to \$2.7 billion in 2018, primarily driven by increases in the merged market and Medicare managed care programs.

Source: Massachusetts Medical Loss Ratio Reports from Massachusetts Division of Insurance. Federal Medical Loss Ratio Reports from Center for Consumer Information and Insurance Oversight. Annual Statutory Financial Statement and Supplemental Health Care Exhibit from National Association of Insurance Commissioners.

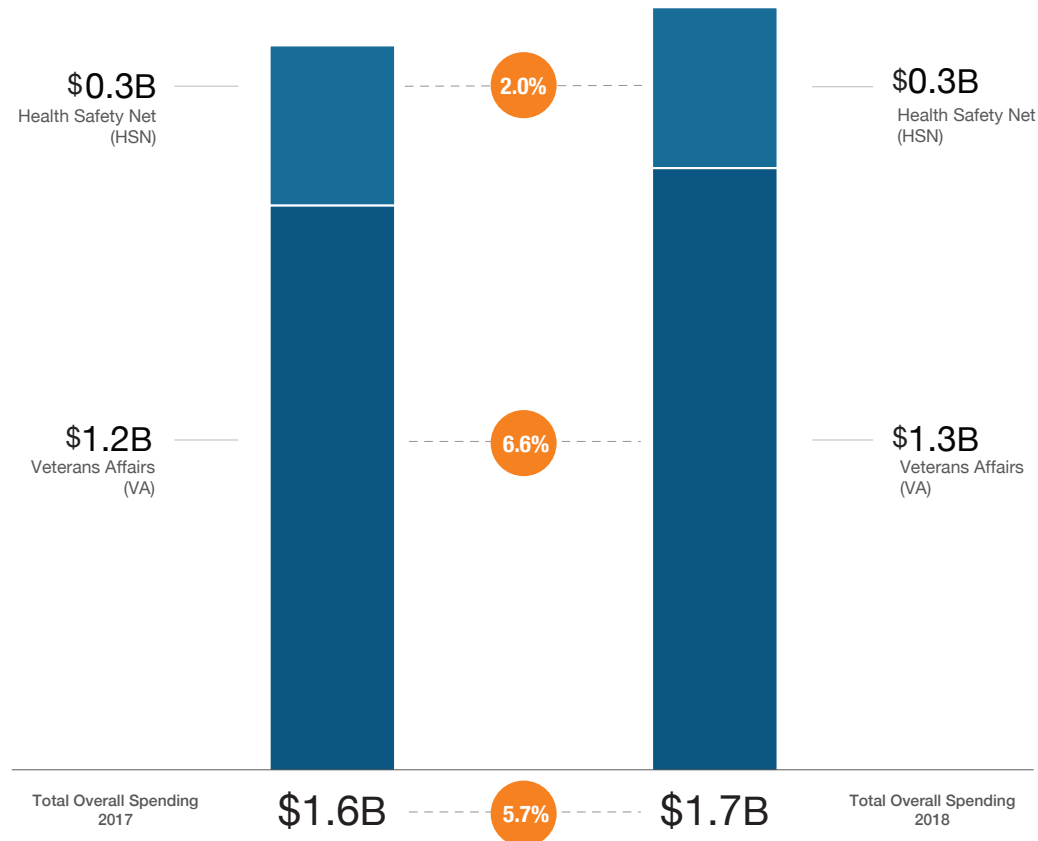
Notes: NCPHI Large Group combines the fully-insured mid-size, large, and jumbo groups. The self-insured category reflects fees collected by payers for administrative services only.

Total Health Care Expenditures

The U.S. Department of Veterans Affairs, through its Veterans Health Administration division, provides health care for certain eligible U.S. military veterans. Medical spending for Massachusetts veterans increased 6.6% to \$1.3 billion in 2018.

The Health Safety Net (HSN) pays acute care hospitals and community health centers for medically necessary health care services provided to eligible low-income uninsured and underinsured Massachusetts residents up to a predetermined amount of available funding. HSN provider payments increased 2.0% in 2018, after declines in spending last year.

Components of Total Health Care Expenditures: Other Public Programs, 2017-2018



THCE COMPONENTS
Detailed View

Health care spending for the Veterans Health Administration grew by 6.6% in 2018; Health Safety Net expenditures increased by 2.0%.

Source: Payer-reported data to CHIA and other public sources.

Notes: Veterans Affairs data sourcing updated, see [technical appendix](#) for details. Percent changes are calculated based on non-rounded expenditure amounts. Please see [databook](#) for detailed information.

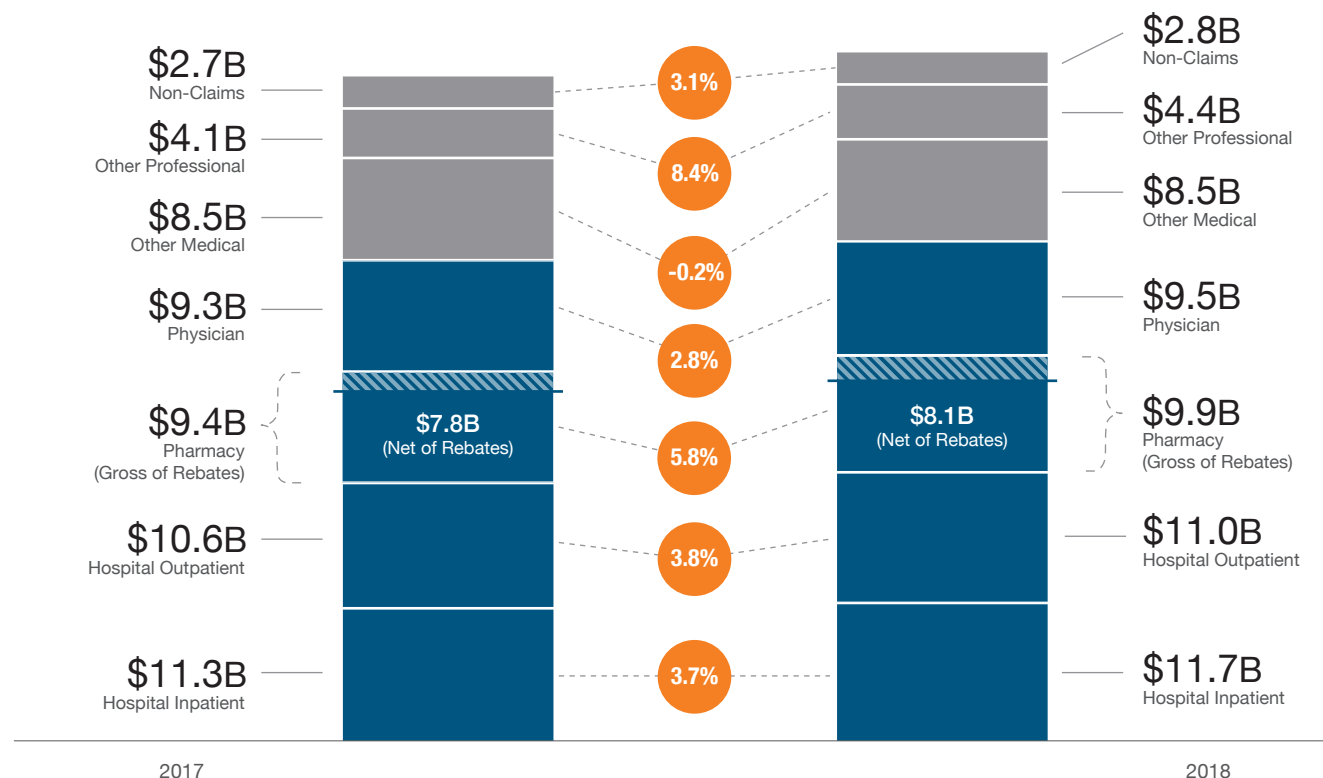
Total Health Care Expenditures

Hospital services accounted for the largest share of overall THCE spending in 2018, with inpatient and outpatient expenses together totaling \$22.7 billion. Hospital outpatient spending increased 3.8% to \$11.0 billion between 2017 and 2018 while hospital inpatient increased 3.7% to \$11.7 billion.

Pharmacy expenditures represent spending under a payer's prescription drug benefit; other service categories may include additional spending associated with drugs that are administered in other care settings such as a hospital or physician's office. Gross pharmacy spending totaled \$9.9 billion in 2018, a 5.8% increase from 2017. Net of prescription drug rebates, pharmacy spending was \$8.1 billion, an increase of 3.6% from the prior year.

Spending for physician services increased slightly, from \$9.3 billion in 2017 to \$9.5 billion in 2018, an increase of 2.8%. Spending for other professional services, which includes care provided by a licensed practitioner other than a physician (such as a nurse practitioner or psychologist), increased by 8.4%, to \$4.4 billion in 2018.

Total Health Care Expenditures by Service Category, 2017-2018



Spending increased for the four largest service categories between 2017 and 2018, with the highest growth in gross pharmacy expenses.

Source: Payer-reported TME data to CHIA and other public sources.

Notes: This chart excludes data from Celticare Health and Minuteman Health, both of which ceased operations in 2017 and did not provide service category level data to CHIA. Service category data was also not available for the Health Safety Net. For detailed information about how expenses were grouped into service categories, see [technical appendix](#).

Total Health Care Expenditures

From 2017 to 2018, THCE in Massachusetts increased by \$2.1 billion.

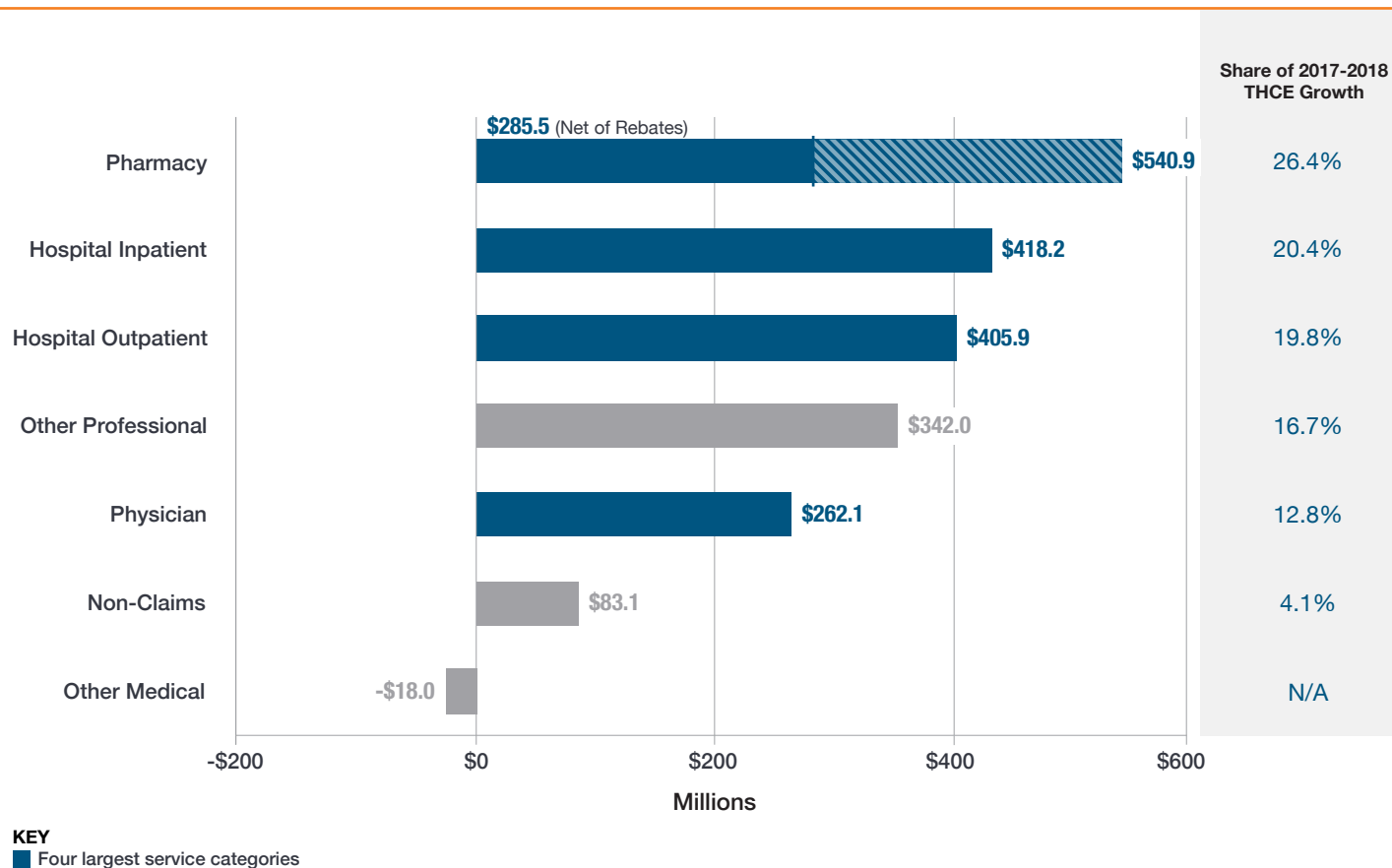
Gross pharmacy spending was the largest component of medical expenditure growth, accounting for 26.4% of the increased spending. Net of prescription drug rebates received after the point of sale, pharmacy expenses increased \$285.5 million from 2017 to 2018.

Spending on hospital inpatient services surpassed hospital outpatient as the second largest contributor to growth in spending, increasing \$418.2 million between 2017 and 2018 and accounting for 20.4% of THCE growth. Hospital outpatient increased at a similar rate, growing \$405.9 million in 2018.

Increases in other professional, physician, and non-claims spending also contributed to overall THCE growth, accounting for 16.7%, 12.8%, and 4.1% of overall growth, respectively.

Other medical expenses (e.g., skilled nursing facility and home health services, durable medical equipment, among others) experienced a decrease in spending, declining by \$18.0 million from 2017 to 2018.

Change in Total Health Care Expenditures by Service Category, 2017-2018



Increases in gross pharmacy and hospital inpatient spending were the largest drivers of THCE growth between 2017 and 2018.

Source: Payer-reported TME data to CHIA and other public sources.

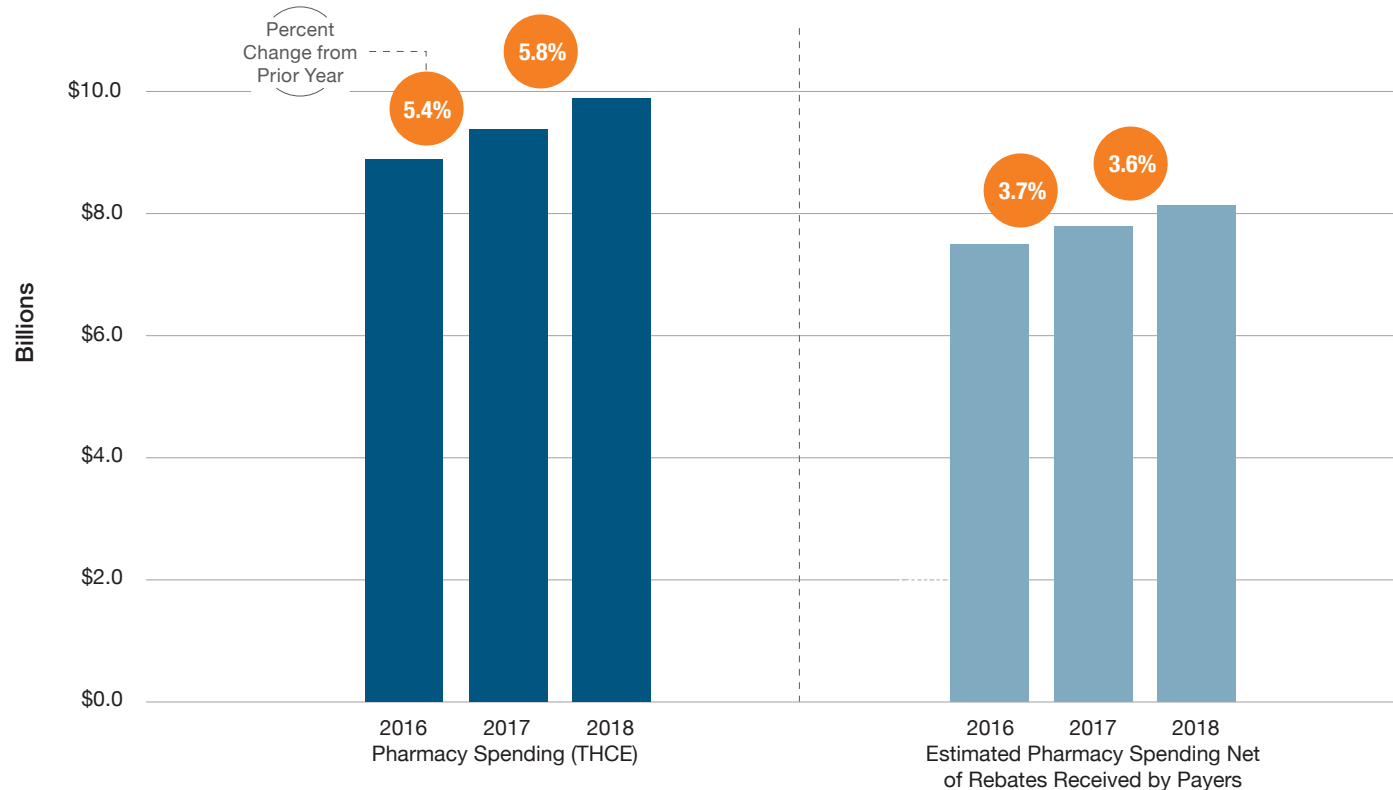
Notes: This chart excludes data from Celticare Health and Minuteman Health, both of which ceased operations in 2017 and did not provide service category level data to CHIA. Service category data was also not available for the Health Safety Net. For detailed information about how expenses were grouped into service categories, see [technical appendix](#).

Total Health Care Expenditures

THCE reflects gross prescription drug expenditures, which represent payer payments to pharmacies, along with member cost-sharing. However, both public and private payers, commonly through pharmacy benefit managers (PBMs), negotiate with drug manufacturers to receive rebates on their members' prescription drug utilization. Additionally, federal law dictates minimum requirements for rebates to state Medicaid programs, and allows private payers that offer MassHealth plans to negotiate supplemental rebates as well. These rebates reduce payer total expenses for prescription drugs.

In 2018, gross prescription drug expenditures totaled \$9.9 billion, a 5.8% increase from \$9.4 billion in 2017. This growth was slightly higher than the prior year, when spending grew by 5.4%. Prescription drug rebates are estimated to have grown over the last three years, from \$1.4 billion in 2016 to \$1.8 billion in 2018. Net of rebates, expenditures for prescription drugs grew 3.6% in 2018, similar to the 2017 trend (3.7%).

Estimated Impact of Rebates on Pharmacy Spending and Growth, 2016-2018



From 2017 to 2018, prescription drugs expenditures grew by 5.8%; expenditures net of rebates increased by 3.6%.

Source: Payer-reported data to CHIA.

Notes: Total pharmacy payments reported by payers in THCE may include prescription drug price concessions, discounts, or rebates transmitted at the point-of-sale, including coverage gap discounts. Pharmacy spending net of rebates estimates the impact of reducing the total pharmacy costs to payers by retrospective rebates, in addition to any price discounts included in THCE.

Total Health Care Expenditures

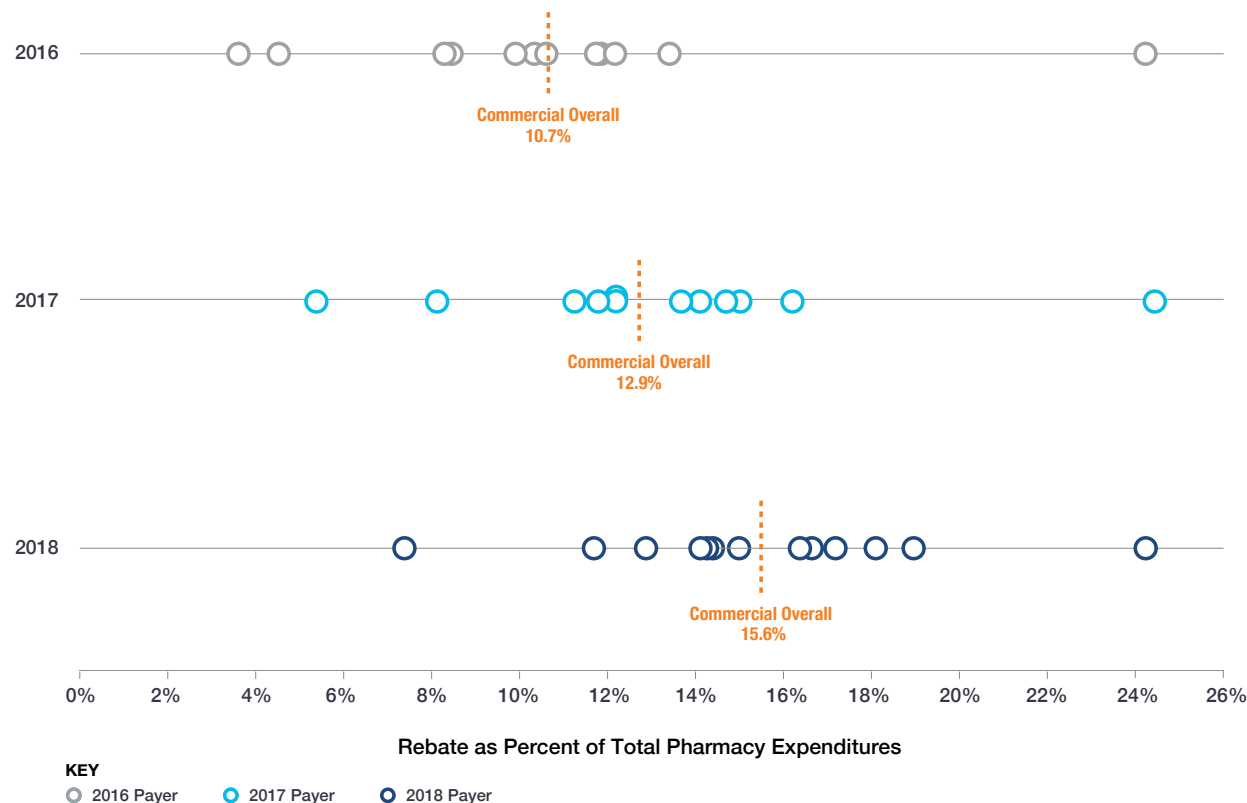
Overall, commercial payers received 15.6% of pharmacy spending back from manufacturers in the form of rebates in 2018. This percentage reflects the amount payers received from PBMs. This percentage is an increase of 2.7 percentage points from 2017.

Variation in payer-reported rebate shares may be driven by several factors, including member demographics, utilization trends, coverage decisions, and market power. In addition, variation may be driven by the complexity and variability of payer-PBM contracts. Variation in rebate percentages among commercial payers narrowed from 2016 to 2018.

In 2018, seven reported rebate proportions were within two percentage points of the overall commercial rebate proportion, consistent with the prior year.

Rebate percentages vary across insurance categories. For Medicare, rebates comprised 10.3% of gross prescription drug spending in 2018; for MassHealth, the rebate percentage was 58.5%, including supplemental rebates received by MCOs and ACOs.

Range of Payer-Reported Commercial Rebates as a Percentage of Gross Pharmacy Expenditures, 2016-2018



Across the commercial market in 2018, 15.6% of pharmacy expenditures were returned to payers in the form of rebates.

Source: Payer-reported data to CHIA.

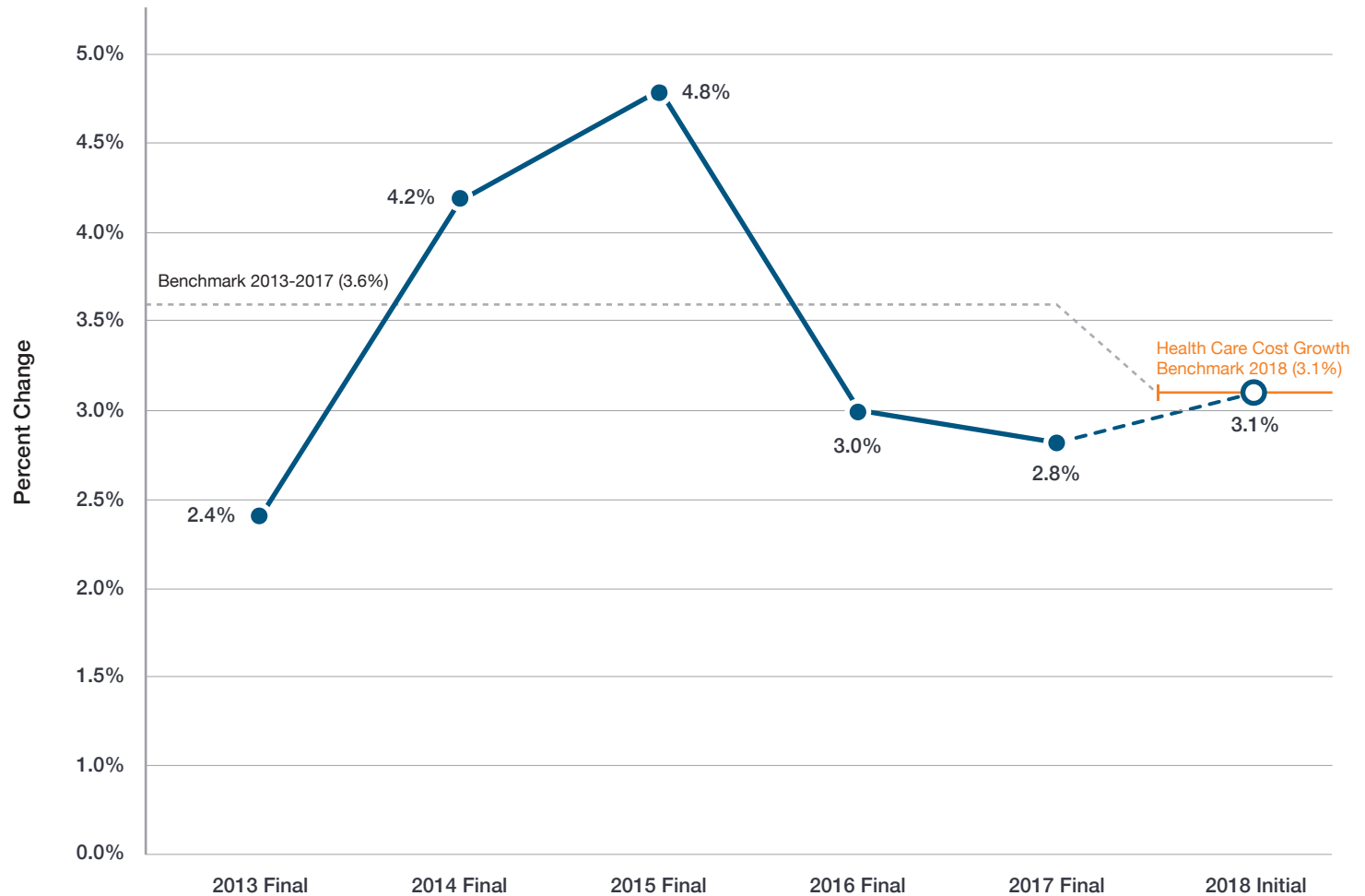
Notes: Overall rebate percentages determined by comparing the reported rebate amounts from all commercial payers by the reported pharmacy expenditures in Total Medical Expenditures by commercial payers. See [technical appendix](#) for more information.

Total Health Care Expenditures

Over the six years that CHIA has published the per capita THCE trend, growth has exceeded the benchmark only in 2014 and 2015. These overarching trends generally match those seen more broadly at the national level: accelerated rates of growth between 2013 and 2015 with more moderate spending growth during the past three years.

However, per capita growth in Massachusetts has consistently fallen below national per capita growth, as estimated by the Centers for Medicare and Medicaid Services' (CMS) National Health Expenditure Accounts, which were projected to grow 4.4% in 2018.

Per Capita Total Health Care Expenditure Trends, 2013-2018



THCE growth per capita equaled the health care cost growth benchmark in 2018, after two years of trending below.

Source: Total Health Care Expenditures from payer-reported data to CHIA and other public sources.

Understanding the Differences: Comparing Initial and Final 2017 THCE

In order to meet statutory deadlines, data used to calculate initial THCE is reported to CHIA with only 60-90 days of claims run-out after the close of the calendar year. As such, the initial assessment of THCE includes payer estimates for claims that have been incurred but not reported, as well as projections of quality and financial performance settlements for providers.

Generally, differences between preliminary and final submission are attributable to variation in the degree of accuracy with which payers predict finalized member eligibility, claims payments, and performance-based settlements. These estimates are often based on historical or market trends, which may or may not accurately reflect the current Massachusetts market. Final data, which allows for a 15-month claims run-out period updates the initial estimates with the actual claims and non-claims experience for the performance period. Non-claims based settlements, in particular, are often settled later than claims; as a result, payers with more non-claims may have more variation in preliminary and final TME/APM data.

The final assessment of 2016-2017 THCE per capita growth was 2.8%, below the 3.6% benchmark. The initial assessment of per capita growth, reported in CHIA's 2018 Annual Report, was 1.6%.

This difference in preliminary and final THCE per capita growth was driven primarily by two payers identifying and removing payments made by third-parties that were reflected elsewhere in THCE.

Payers were required to update 2017 spending with more complete claims and non-claims based payments. In addition, several payers updated data to reflect minor data adjustments, corrections, or to reflect updates in the health status adjustment tools.

For more detailed information on 2017 final data and the health status adjustment tools used in this reporting period, please see the [databook](#).

Total Health Care Expenditures Notes

- 1** Pursuant to M.G.L. c.6D §9, the benchmark for 2017 is tied to the annual rate of growth in potential gross state product (PGSP). The benchmark for 2018 is equal to the PGSP minus 0.5% (or 3.1%). Detailed information available at <https://www.mass.gov/info-details/health-care-cost-growth-benchmark>.
- 2** NCPHI includes administrative expenses attributable to private health insurers, which may be for commercial or publicly funded plans.
- 3** National trends in Medicare spending are estimated based on data reported to CHIA by CMS.

Total Medical Expenses & Alternative Payment Methods

KEY FINDINGS

The three largest commercial payers reported low or negative preliminary HSA TME trends in 2018.

Final HSA TME growth for the 10 largest physician groups was predominantly below the 2017 cost growth benchmark.

APM adoption increased within MassHealth in 2018 with the rollout of ACOs.

Commercial APM adoption declined in 2018.

Total Medical Expenses & Alternative Payment Methods

In addition to measuring the Commonwealth's THCE, CHIA also monitors health care spending by private commercial and privately administered Medicaid and Medicare plans and their members. The Total Medical Expense (TME) data included in this chapter enables a more detailed examination of spending drivers within health plans and among provider organizations that manage patients' care.

TME represents the total amount paid to providers for health care services delivered to a payer's member population, expressed on a per member per month (PMPM) basis. TME includes the amounts paid by the payer as well as member cost-sharing, and covers all categories of medical expenses and all non-claims-related payments to providers, including provider performance payments. TME is reported for Massachusetts residents.

In addition to spending levels and trends, CHIA collects information about the payment arrangements between payers and providers. Historically, the majority of health care services have been paid using a fee-for-service (FFS) method. Chapter 224 of the Acts of 2012 set goals to increase the adoption of alternative payment methods (APMs) which are methods of payment in which some of the financial risk associated with the delivery of medical care as well as the management of health conditions is shifted from payers to providers.

Generally, APMs are intended to give providers new incentives to control overall costs (e.g., reduce unnecessary services and provide services in the most appropriate setting) while maintaining or improving quality.

This chapter focuses on 2017 final and 2018 preliminary¹ TME and APMs using the following metrics:

TME: Total expenditures for health care services in a given year, divided by the number of member months in the payer's population.

Health Status Adjusted (HSA) TME: TME adjusted to reflect differences in the health status of member populations.

Managing physician group TME: TME for members required by their insurance plan to select a PCP, as well as for members who are attributed to a PCP as part of a contract between the payer and provider.

APM adoption: The share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer.

In order to meet statutory deadlines, this report includes information using both preliminary and final TME and APM data. Preliminary TME/APM data is reported to CHIA with only 60-90 days run-out after the close of the calendar year. Preliminary TME includes payer estimates for claims that have been incurred but not reported, as well as projections of quality and financial performance

settlements for providers. Final data, which allows for a 15-month claims run-out period, updates the preliminary estimates with the actual claims and non-claims experience for the performance period. This chapter highlights health status adjusted TME using preliminary data for payers, and final data for physician groups.

Generally, differences between preliminary and final TME/APM submissions are attributable to variation in the degree of accuracy with which payers predict finalized member eligibility, claims payments, and performance-based settlements. Non-claims based settlements, in particular, are often settled later than claims; as a result, payers with more non-claims may have more variation in preliminary and final TME/APM data.

All TME expenditures and trends reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale.

For more detailed information on 2017 final data, please see the [databook](#). •

Total Medical Expenses & Alternative Payment Methods

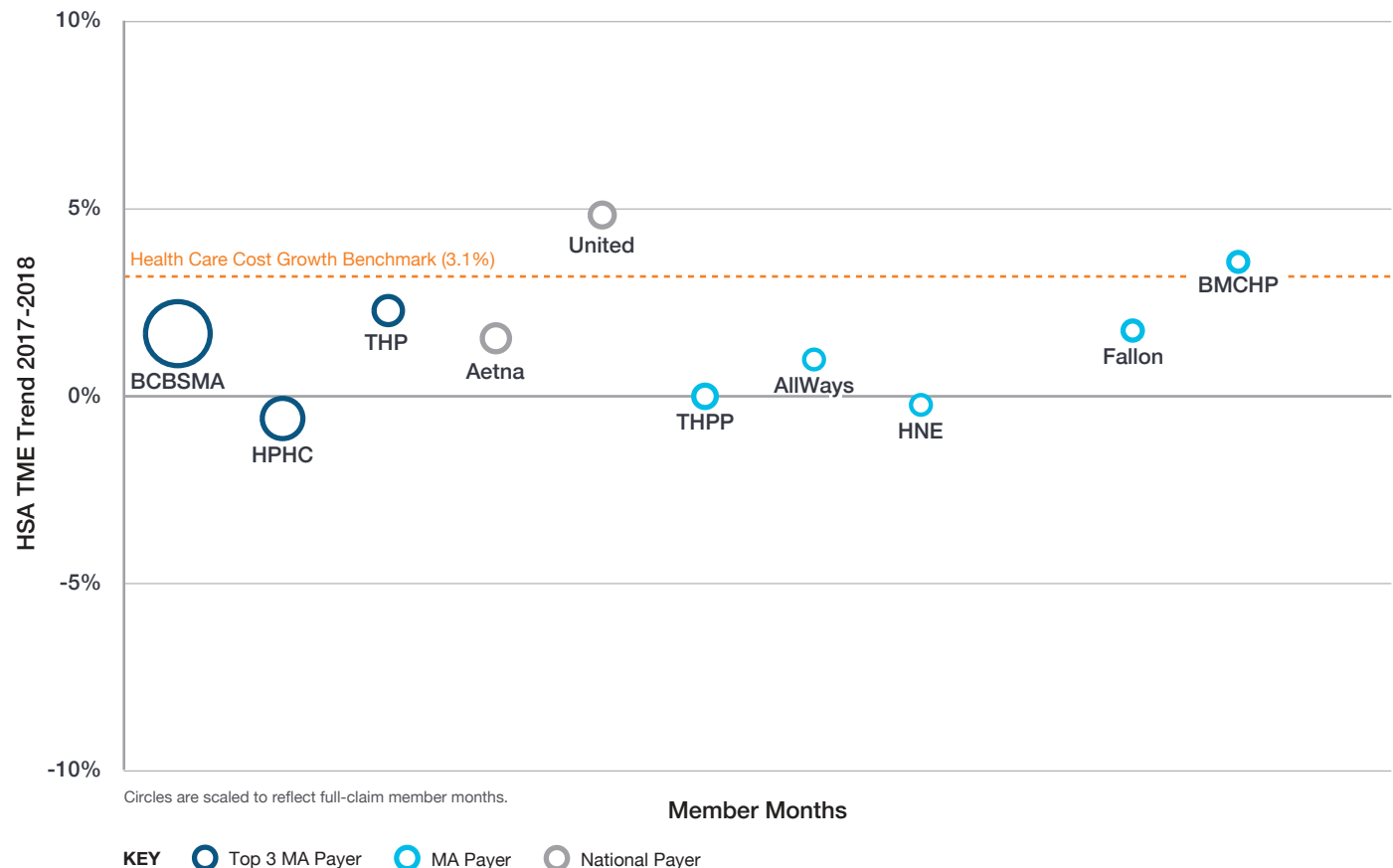
CHIA examines TME on a health status adjusted (HSA) basis for each payer's member population, which adjusts for differences in member illness burden and medical costs.

Nine of the 12 commercial payers, accounting for 87.8% of the commercial full-claim population, reported preliminary HSA TME growth below the 3.1% benchmark from 2017 to 2018.^{1,2}

The three largest Massachusetts-based commercial payers, Blue Cross Blue Shield of Massachusetts (BCBSMA), Harvard Pilgrim Health Care (HPHC), and Tufts Health Plan (THP), accounted for 62.6% of member months in 2018. HPHC reported a 0.5% decline in HSA TME. BCBSMA and THP both reported increases in HSA TME below the benchmark, at 1.7% and 2.3%, respectively.

Four of the other five Massachusetts-based commercial payers also reported growth of HSA TME from 2017 to 2018 below the 3.1% benchmark. Two national payers, Aetna and Cigna-West, reported HSA TME growth below the 3.1% benchmark. United and Cigna-East³ reported HSA TME growth over the 3.1% benchmark, at 4.8% and 12.1%, respectively.

Change in Preliminary Commercial HSA TME by Payer, 2017-2018



The three largest commercial payers reported low or negative preliminary health status adjusted TME trends in 2018.

Source: Payer-reported TME data to CHIA.

Notes: Cigna-East (12.1%) and Cigna-West (-12.9%) are not displayed above. Data presented here should be considered preliminary, incorporating only 60 days of claims run-out and payers' estimates for quality and other performance settlements. Commercial full-claims data represents members for whom the payer has access to and is able to report all claims expense, and represented 71% of total commercial member months in 2018. The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore adjustments are not directly comparable across payers. See the [databook](#) for a list of health status adjustment tools used for the data presented in this report. These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale.

Total Medical Expenses & Alternative Payment Methods

In 2018, BMC HealthNet Plan (BMCHP) and Tufts Health Public Plans (THPP) began offering ACO-A plans to their MassHealth members in addition to their MCO plans. Fallon, Health New England (HNE) and AllWays Health Partners (formerly Neighborhood Health Plan) discontinued their MCO plans and offered only ACO-A plans to their MassHealth members.

The majority of MassHealth MCO/ ACO-A members (86.0%) were enrolled with THPP, BMCHP, and Fallon. All three of these payers reported membership increases over 30.0% in 2018. BMCHP and THPP reported negative trends in preliminary HSA TME from 2017 to 2018, while Fallon reported an increase of 5.6%.

The remaining two payers, AllWays Health Partners and HNE, accounted for 14.0% of member months in 2018. AllWays reported negative preliminary HSA TME growth of -9.1%, while HNE reported a 9.4% increase in HSA TME. Both payers reported decreases in membership.

Change in Preliminary MassHealth MCO and ACO-A HSA TME by Payer, 2017-2018



Two of the three largest MassHealth MCO/ACO-A payers reported negative preliminary health status adjusted TME trends in 2018.

Source: Payer-reported TME data to CHIA.

Notes: Data presented here should be considered preliminary, incorporating only 60 days of claims run-out and payers' estimates for quality and other performance settlements. The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore adjustments are not uniform or directly comparable across payers. See the [databook](#) for a list of health status adjustment tools used for the data presented in this report. These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale.

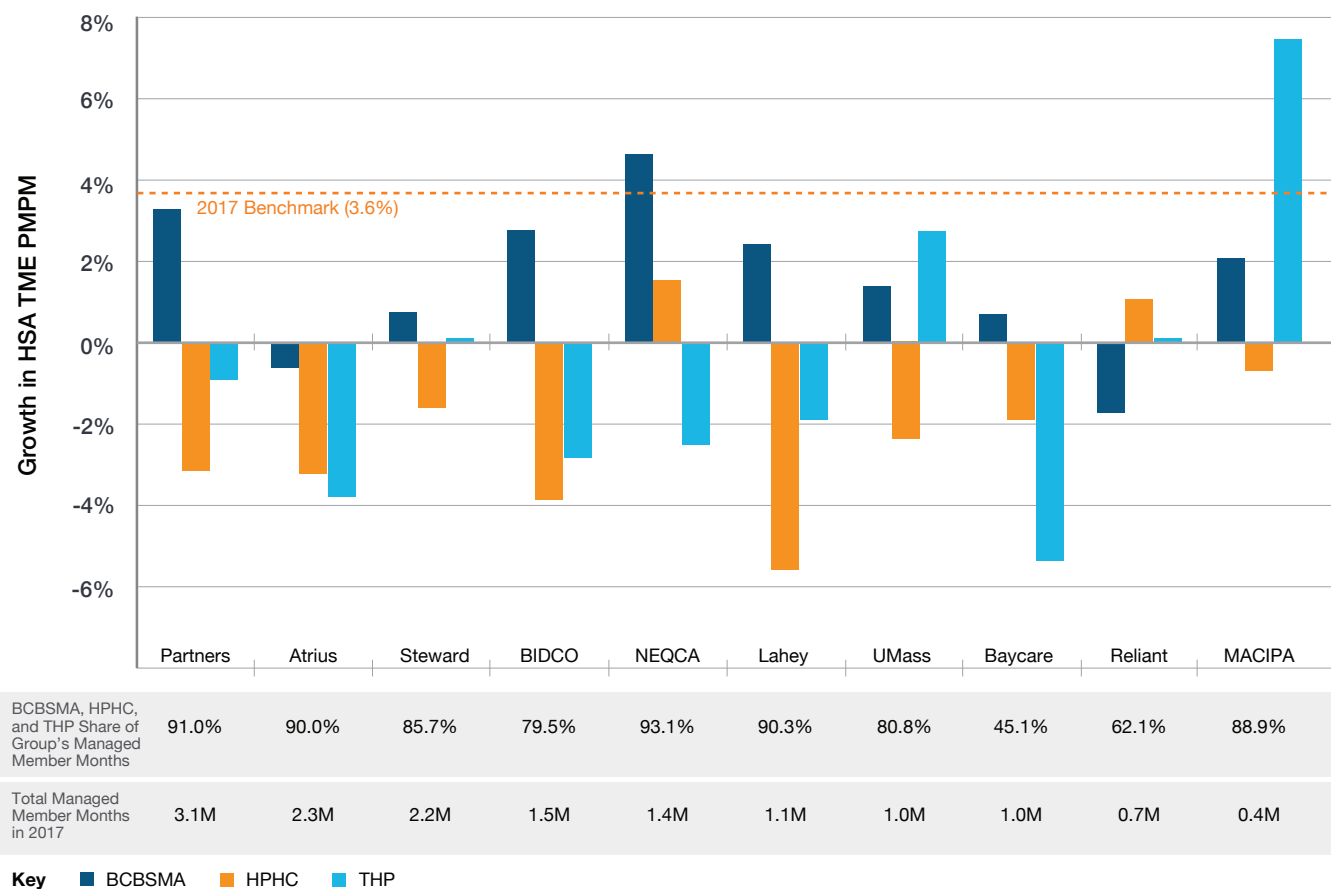
Total Medical Expenses & Alternative Payment Methods

Managing physician groups, often multi-specialty practices that include PCPs, are responsible for coordinating the care of their members. Managing physician group HSA TME measures the total medical spending for commercial members attributed to a PCP, adjusted to reflect differences in physician groups' patient populations.

Commercial members managed by Steward Network Services (Steward), New England Quality Care Alliance (NEQCA), UMass Memorial Health Care (UMass), Reliant Medical Group (Reliant), and Mount Auburn Cambridge IPA (MACIPA) experienced increases in HSA TME in two of the three payers networks depicted here. However, most increases fell below the 2017 health care cost growth benchmark of 3.6%.

Five of the 10 largest physician groups experienced decreases in HSA TME in the networks of two of the three largest payers between 2016 and 2017. Atrius Health experienced a decline in HSA TME in all three payer networks.

Change in Final Managing Physician Group Commercial HSA TME, 2016-2017



HSA TME growth was predominantly below the 2017 cost growth benchmark for the 10 largest physician groups.

Source: Payer-reported TME data to CHIA.

Notes: Data reported here is based on final 2016-2017 commercial full-claim TME data, both for members whose plan requires the selection of a PCP, as well as for members who were attributed to a PCP pursuant to a contract between the payer and the physician group. The tools used for adjusting TME for health status of a payer's covered members vary among payers, and therefore HSA TME is not comparable across payers. See the [databook](#) for more information. Health New England represented the largest share of member months for Baycare. Fallon was the largest payer for Reliant. These trends are based on expenditures that reflect payments to providers, and are gross of prescription drug rebates received by health plans after the point of sale.

Total Medical Expenses & Alternative Payment Methods

Over the past several years, payers and providers have been using APMs to promote coordinated care while also providing incentives to control overall costs while maintaining or improving quality.

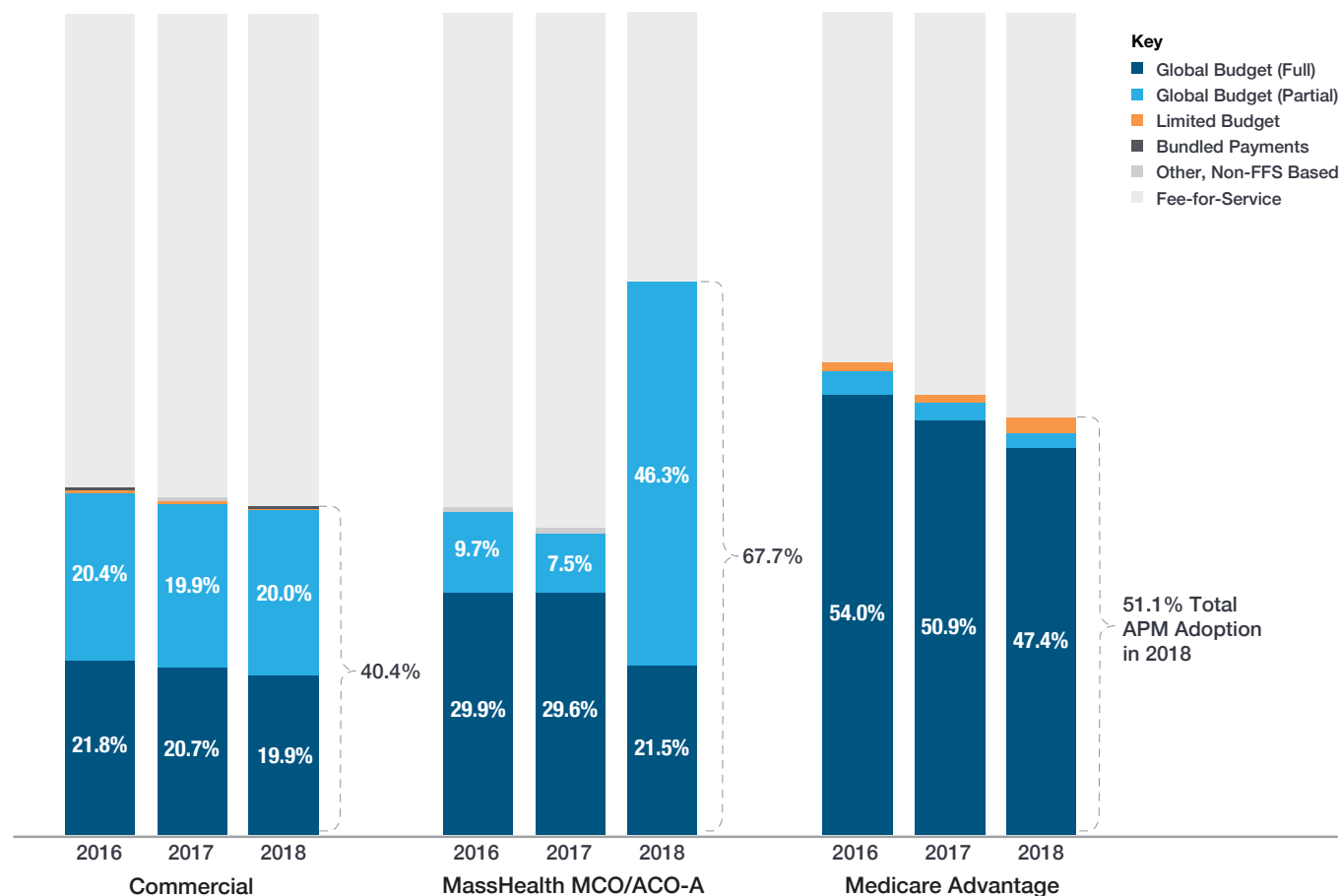
In the Massachusetts commercial market, the share of members with PCPs engaged in an APM has declined in each of the past two years. APM adoption was 40.4% in 2018, a 1.1 percentage point decrease from 2017.

MassHealth MCOs and ACOs reported APM use for 67.7% of members in 2018, an increase of 29.9 percentage points from 2017, driven by the implementation of the MassHealth ACO program in March 2018.

Just over half (51.1%) of Medicare Advantage members had their care paid for under APMs in 2018.

Global payment arrangements continued to be the dominant APM employed by payers, accounting for 98.8% of commercial APM arrangements, 96.2% of Medicare Advantage arrangements, and 100% of MassHealth MCO and ACO APM arrangements in 2018.

Adoption of Alternative Payment Methods by Insurance Category, 2016-2018



APM adoption continued to decline for commercial payers, while adoption nearly doubled for MassHealth as ACOs were implemented.

Source: Payer-reported APM data to CHIA.

Notes: Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. Global partial APMs reflect arrangements in which the physician group is not held accountable for certain services, often pharmacy and behavioral health expenses.

Total Medical Expenses & Alternative Payment Methods

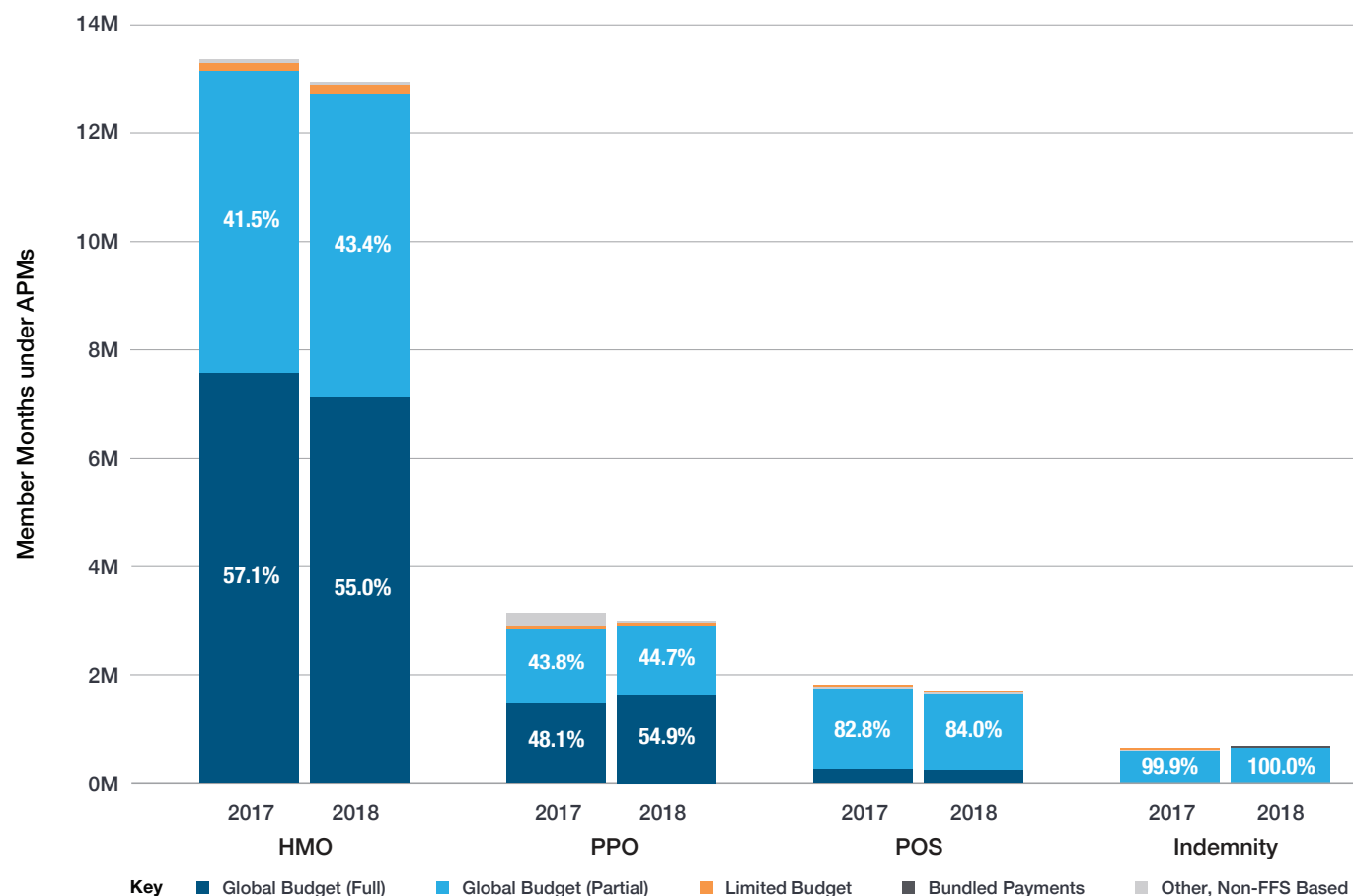
The 40.4% of commercial members whose care was paid for using APMs in 2018 equated to 17.9 million member months, a decline of 0.6 million member months from 2017. The majority of these members were enrolled in HMO or PPO products. The proportion of HMO, PPO, and POS members covered under an APM decreased, while APM adoption increased for individuals with Indemnity plans.

APM adoption for HMO members decreased from 65.3% to 63.6% between 2017 and 2018, while overall HMO membership remained largely consistent during this period.

The proportion of total PPO member months covered under an APM decreased between 2017 and 2018, largely due to an increase in new PPO members not assigned to APMs.

Among HMO and PPO products, global arrangements that held PCPs accountable for all services (global full) were most common, whereas contracts with services carved out from the global budget (global partial) were more prevalent among POS and Indemnity plans.

Alternative Payment Methods by Commercial Product Type, 2017-2018



Global budgets inclusive of all services were the predominant APM among HMO and PPO products.

Source: Payer-reported APM data to CHIA.

Notes: Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. The data displayed above includes both full-claim and partial-claim members, and total 40.4% of total commercial member months in 2018.

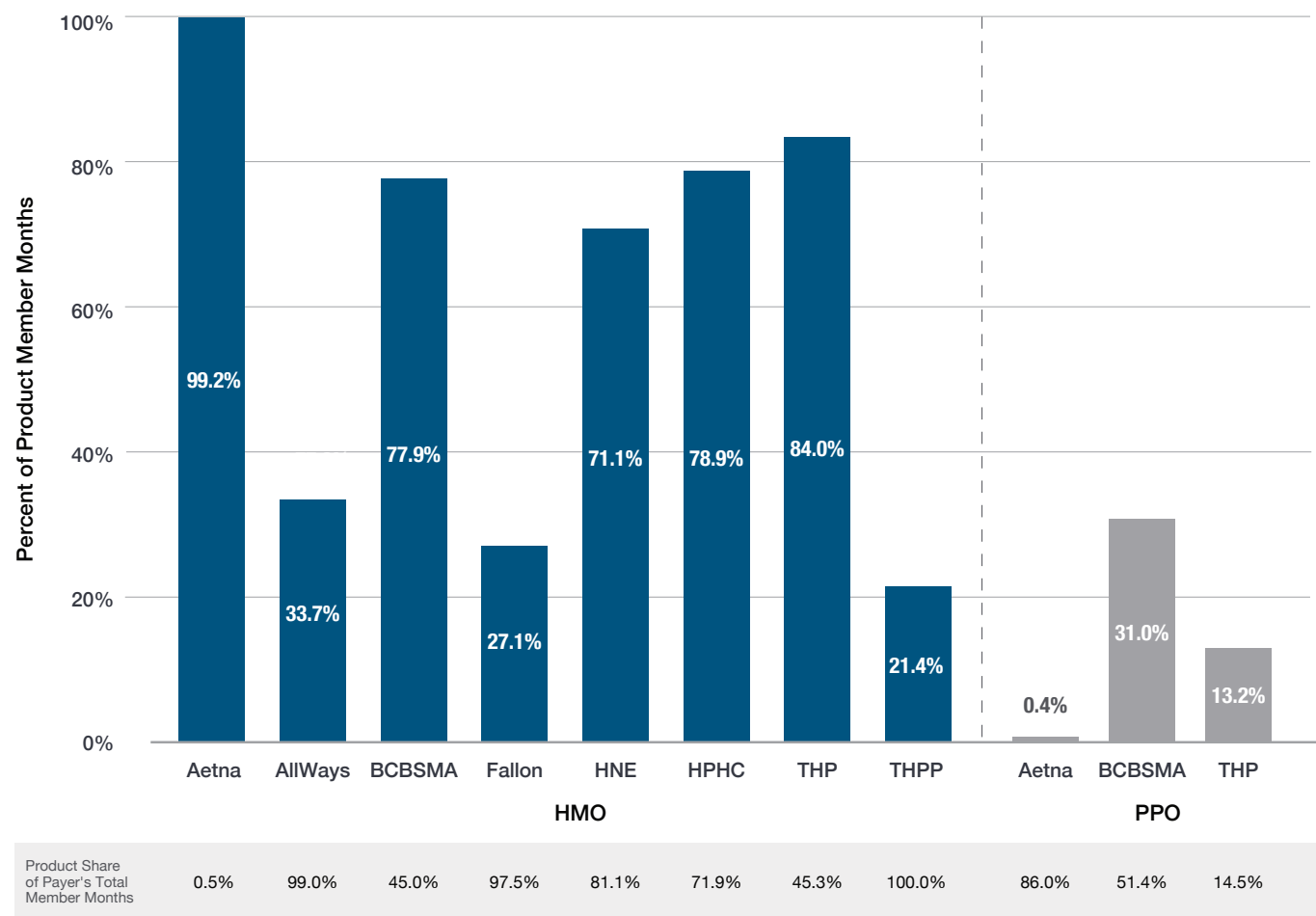
Total Medical Expenses & Alternative Payment Methods

HMO and PPO plans represented over 80% of commercial membership and \$18.4 billion in spending in 2018.

Eight payers reported APM use for their commercial HMO populations. Five of these payers, Aetna, BCBSMA, HNE, HPHC, and THP, reported over 70% of their HMO members under APM arrangements in 2018, with Aetna reporting nearly 100%. BMCHP was the only other payer who offered HMO products in 2018, and reported no commercial APM arrangements.

PPO products had lower APM adoption use than HMOs, with three payers reporting APM use for PPO members in 2018. Aetna reported less than 1.0% of their PPO members in APMs. BCBSMA and THP had higher APM adoption, at 31.0% and 13.2%, respectively. AllWays, Cigna, Fallon, HNE, HPHC, Health Plans, Inc. (HPI), and United reported all of their PPO membership in fee-for-service in 2018.

HMO and PPO Alternative Payment Method Adoption by Commercial Payer, 2018



Eight of nine commercial payers with HMO products in 2018 utilized APMs.

Source: Payer-reported APM data to CHIA.

Notes: Cigna, HPI, and United Healthcare reported the use of no APMs. Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. The data displayed above includes both full-claim and partial-claim members, and represent 35.1% of total commercial member months in 2018.

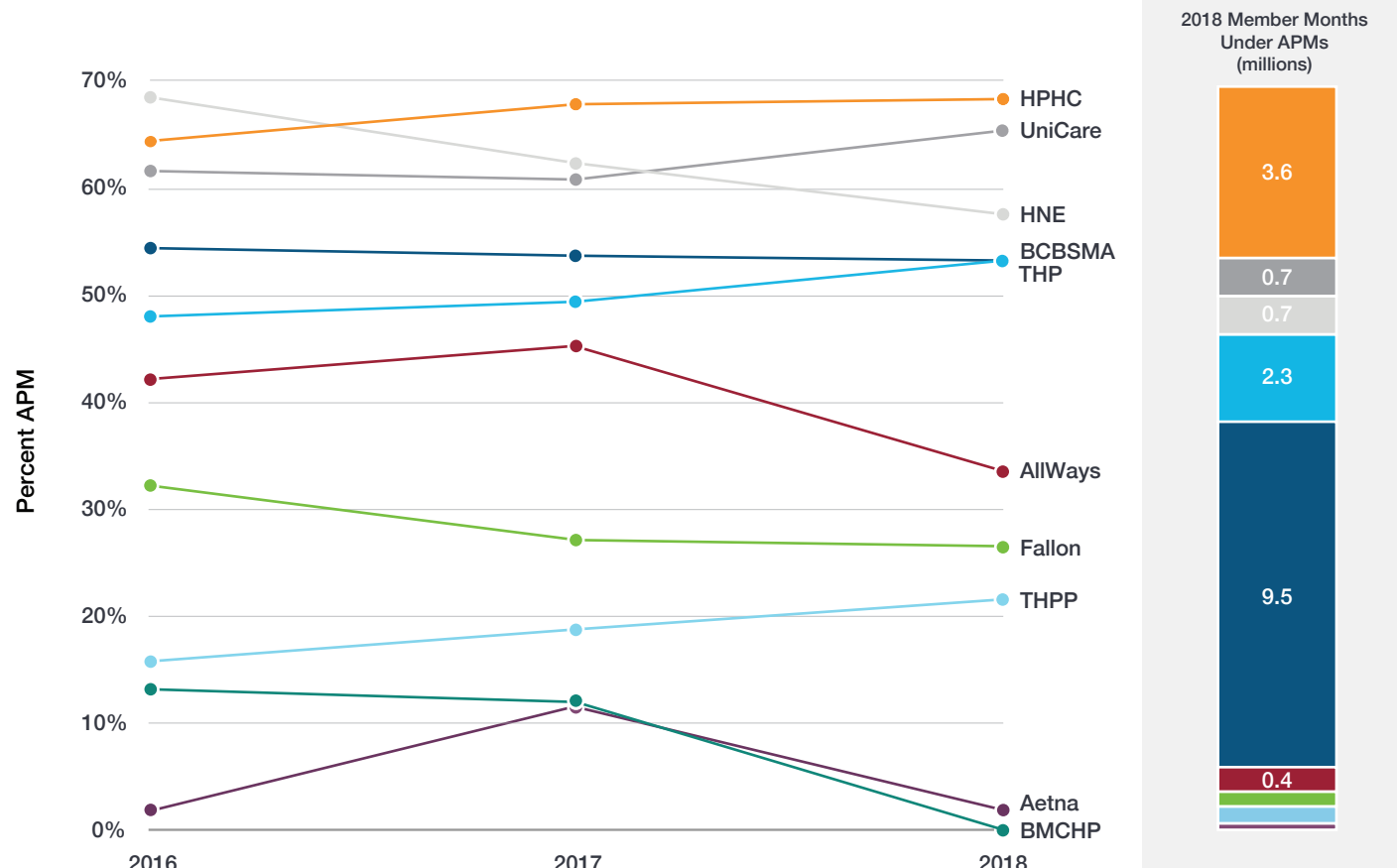
Total Medical Expenses & Alternative Payment Methods

Nine of 13 commercial payers reported APM contract arrangements in 2018. HPHC, UniCare, THP, BCBSMA, and HNE had the majority of their members' care paid for through an APM arrangement, consistent with prior years.

Five payers, HPHC, THP, THPP, BCBSMA, and UniCare, reported increases in the proportion of members whose PCP was engaged in an APM contract.

Cigna and United Healthcare reported no APMs in 2018, consistent with prior years. One payer, BMCHP, reported no commercial members under APMs in 2018 after reporting 12.0% APM adoption in the prior year.

APM Adoption Trends by Commercial Payers, 2016-2018



In 2018, nine of 13 commercial payers reported APM contract arrangements, one fewer than the previous year.

Source: Payer-reported APM data to CHIA.

Notes: Cigna, HPI, and United Healthcare reported no use of APMs. Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. The data displayed above includes both full-claim and partial-claim members, and represent 40.4% of total commercial member months in 2018.

Total Medical Expenses & Alternative Payment Methods

APMs are implemented as a shared initiative between payers and the physician groups that manage patients' care.

The 10 largest physician groups managed care for 45.9% of adult HMO and PPO members in 2018.

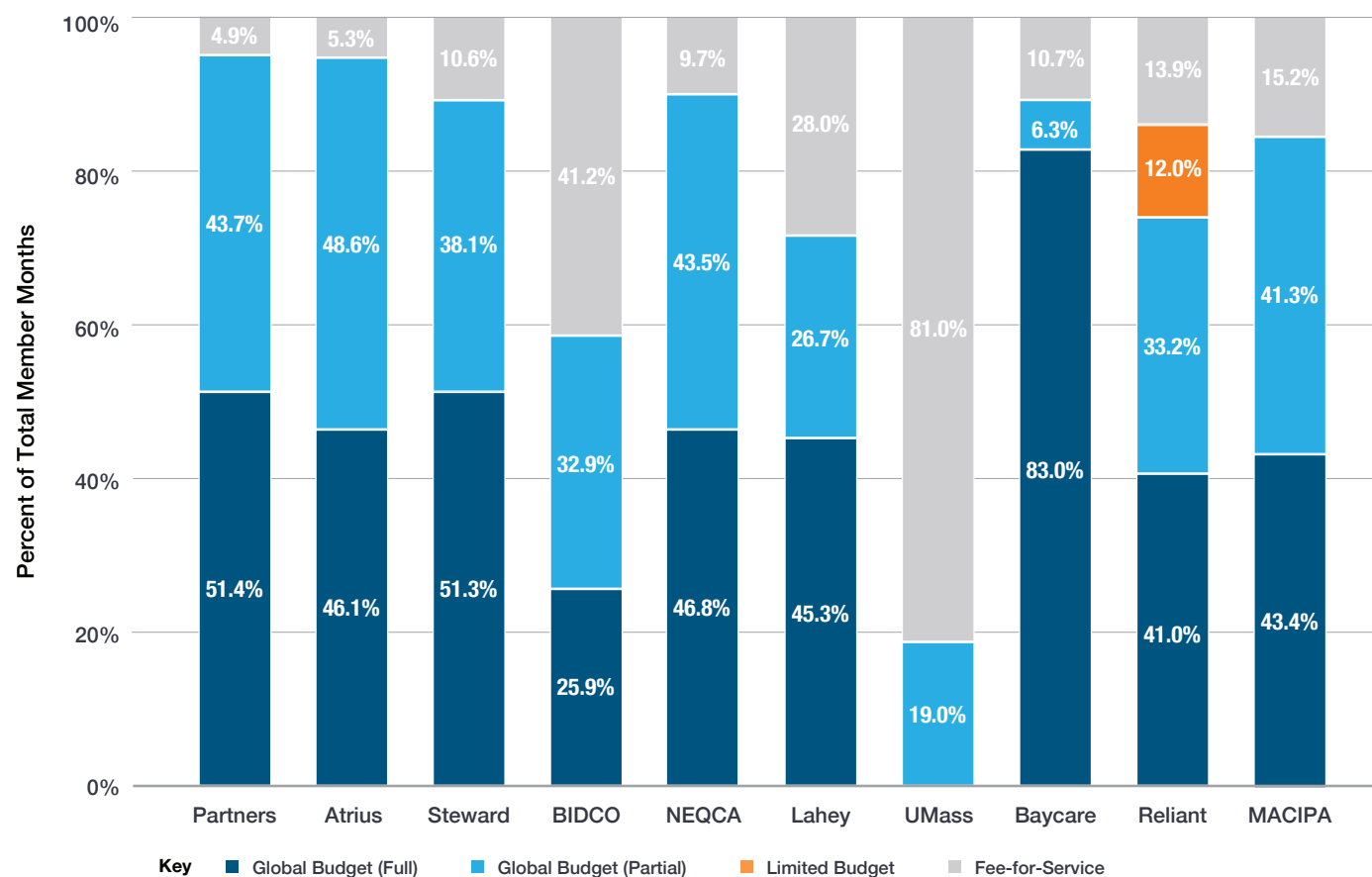
Nine of these 10 largest managing physician groups had more than half of their member months under an APM.

Partners Community Physicians Organization and Atrius Health had the highest share of member months under APMs, at 95.1% and 94.7%, respectively.

Global full and global partial budget arrangements comprised the majority of APM use. One provider, Reliant Medical, utilized limited budget arrangements for 12.0% of overall member months.

UMass Memorial Medical Group had the lowest APM adoption among the top 10 physician groups, with 19.0% of total member months under a global partial arrangement in 2018.

Commercial Adoption of Alternative Payment Methods by Managing Physician Group, 2018



The 10 largest managing physician groups all utilized APMs to varying degrees in 2018.

Source: Payer-reported APM data to CHIA.

Notes: Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. The data displayed above includes both full-claim and partial-claim adult HMO and PPO members whose care was managed by one of the 10 largest physician groups, and represent 39.6% of total commercial member months in 2018.

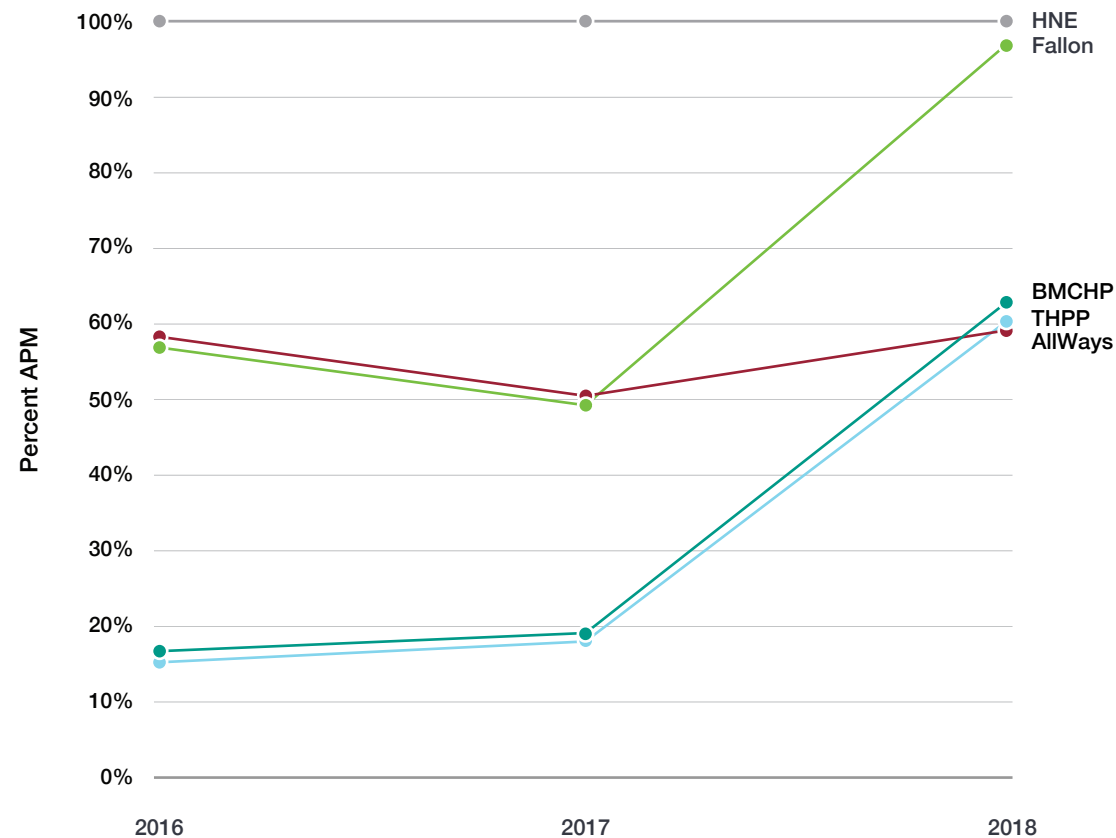
Total Medical Expenses & Alternative Payment Methods

In 2018, all five MassHealth MCO and ACO payers reported APM contract arrangements, covering 67.7% of total members, compared to 37.8% in 2017, which was before the implementation of the ACO program.

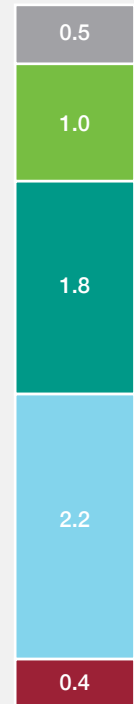
One payer, HNE, reported all members under an APM during the three-year period.

Three payers, Fallon, BMCHP, and THPP, reported significant increases in APM adoption from 2017 to 2018. Fallon reported the largest increase (47.5 percentage points) and had the second highest APM adoption rate in 2018 at 96.9%.

APM Adoption Trends by MassHealth MCOs and ACO-As, 2016-2018



2018 Member Months Under APMs (millions)



Three of the five MassHealth MCOs and ACOs reported large increases in APM adoption.

Source: Payer-reported APM data to CHIA.

Notes: Membership under APMs is measured by the share of member months associated with a primary care provider engaged in an alternative payment contract with the reporting payer. The data displayed above represent 67.7% of total MCO/ACO-A member months in 2018.

Total Medical Expenses & Alternative Payment Methods Notes

1 In order to meet statutory deadlines, this report includes information using both preliminary and final TME and APM data. Preliminary TME/APM data is reported to CHIA with only 60-90 days run-out after the close of the calendar year. Preliminary TME includes payer estimates for claims that have been incurred but not reported, as well as projections of quality and financial performance settlements for providers. Final data, which allows for a 15-month claims run-out period, updates the preliminary estimates with the actual claims and non-claims experience for the performance period. This chapter highlights health status adjusted TME using preliminary data for payers, and final data for physician groups.

Generally, differences between preliminary and final TME/APM submissions are attributable to variation in the degree of accuracy with which payers predict finalized member eligibility, claims payments, and performance-based settlements. Non-claims based settlements, in particular, are often settled later than claims; as a result, payers with more non-claims may have more variation in preliminary and final TME/APM data.

For more detailed information on 2017 final data, please see the [databook](#).

- 2** All TME expenditures and trends in this chapter reflect payments to providers, and are gross of rebates received by health plans after the point of sale.
- 3** Cigna-East and Cigna-West are excluded from this display as their HSA trend values were outliers. From 2017 to 2018, Cigna-East reported an increase of 12.1% in HSA TME and Cigna-West reported a decrease of 12.9%.

Private Commercial Contract Enrollment

KEY FINDINGS

In 2018, 93% of private commercial contract members were covered by employer-sponsored insurance.

The fastest growing payers in 2018 were BMCHP and THPP, both of which focused on enrolling individual purchasers.

Approximately 60% of Massachusetts contract members were self-insured, mostly through larger employer groups and the Group Insurance Commission.

The proportion of members enrolled in HDHPs (31.5%) continued to increase across most market sectors in 2018. HDHPs were particularly prevalent among individual purchasers and small employer groups.

Private Commercial Contract Enrollment

As part of its efforts to monitor the changing health care landscape, CHIA collects and analyzes Massachusetts private commercial health insurance enrollment data. Data reported by payers for 2016 through 2018 reflects more than 4.5 million contract lives.¹ CHIA analyzed enrollment by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). Unless otherwise noted, the remaining chapters of this report highlight membership and cost trends for members covered under private commercial contracts established in Massachusetts (which may include non-Massachusetts residents).²

While the vast majority of private commercial members are covered under employer-sponsored insurance (ESI), some individuals purchase plans via the Health Connector,

through brokers, or directly from insurers. Within the report, these members are referred to as “individual purchasers.”

Depending on income and other eligibility factors, qualifying Massachusetts residents may purchase ConnectorCare plans that include state cost-sharing reduction (CSR) subsidies and premium subsidies and tax credits. Prior to October 2017, ConnectorCare funding also included federal CSR subsidies. Of the payers included in this report, AllWays, BMCHP, Fallon, HNE, and THPP offered ConnectorCare plans.³

Individual purchasers and the small employer group operate as a “merged market” with different premium-rating requirements and Affordable Care Act (ACA) benefit standards than larger employer group purchasers.

For additional insight into:

- Employer-sponsored insurance plans, see CHIA's 2018 [Massachusetts Employer Survey](#).
- Massachusetts insurance enrollment trends, including Medicare and Medicaid enrollment, see CHIA's most recent [Enrollment Trends](#) publication.

Due to notable federal changes in premium and cost-sharing assistance programs, this report contains *A Closer Look* at individual purchasers.

Chapter results do not include data for student health plans offered by colleges and universities. The [dataset](#) contains more information on this population as well as expanded enrollment and financial data for the private commercial market. •

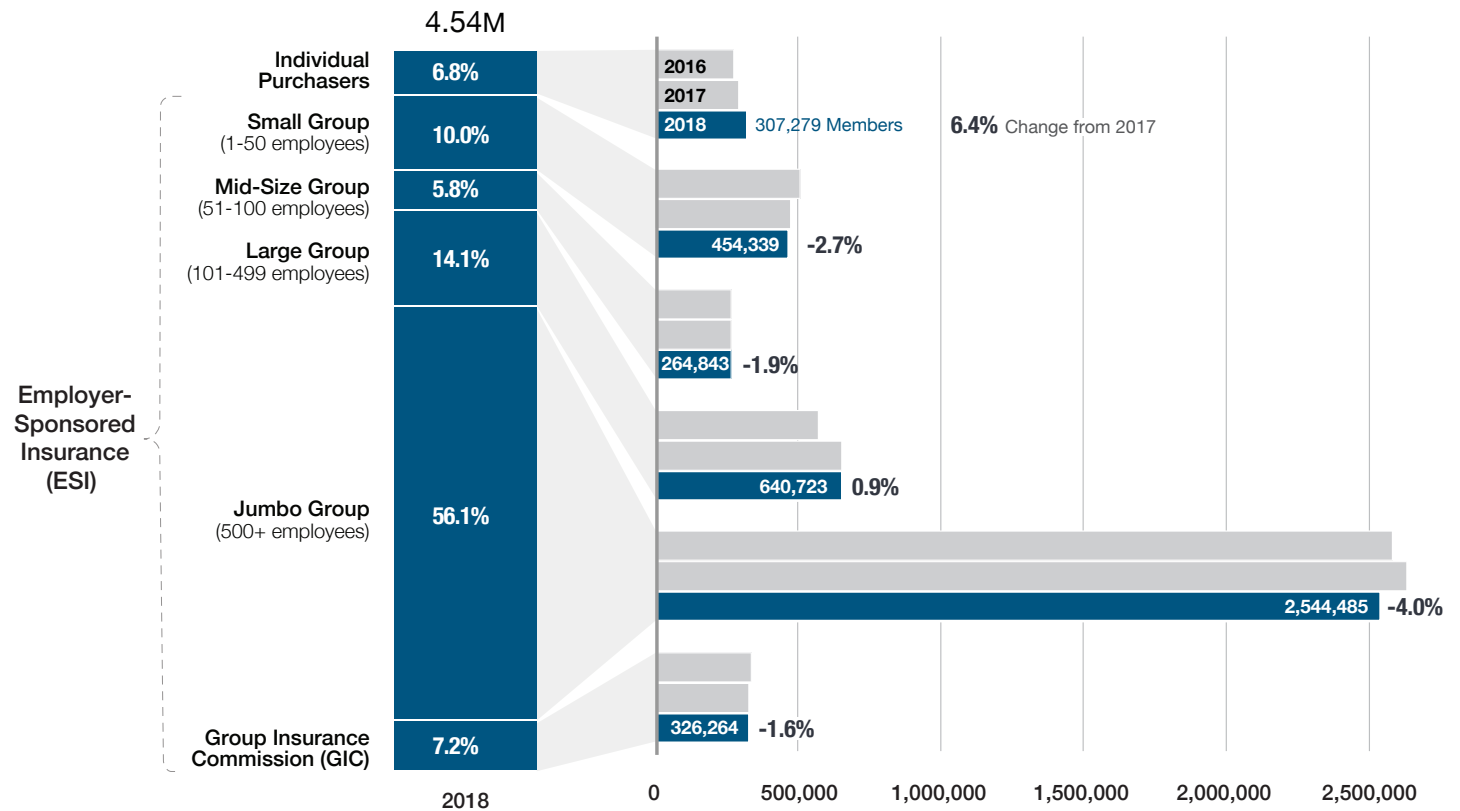
Private Commercial Contract Enrollment

Approximately three in five Massachusetts residents are covered by private commercial insurance.⁴ In 2018, private commercial enrollment was down 2.3% from 2017, reversing a trend of increasing enrollment in previous years.

The vast majority (93.2%) of private commercial coverage was purchased through ESI plans. More than 2.5 million contract lives, or 56.1% of the market, were enrolled through jumbo group employers with at least 500 employees. Enrollment in this market sector fell by 4.0%, just over 100,000 members, in 2018. Enrollment in most other ESI categories also declined.

The number of individual purchasers continued to increase, although growth from 2017 to 2018 (+6.4%) was slower than in previous years. During the same period, enrollment in small group health plans decreased by 2.7%. These two sectors are “merged” for premium-rating purposes.

Enrollment by Market Sector, 2016-2018



While 93% of members were covered by employer-sponsored insurance in 2018, individual purchasers continued to show the fastest percentage growth in enrollment.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Data for individual purchasers excludes CeltiCare and Minuteman Health, which closed in 2017 and fell below the membership reporting threshold for this data request. Jumbo group does not include GIC members. See [technical appendix](#).

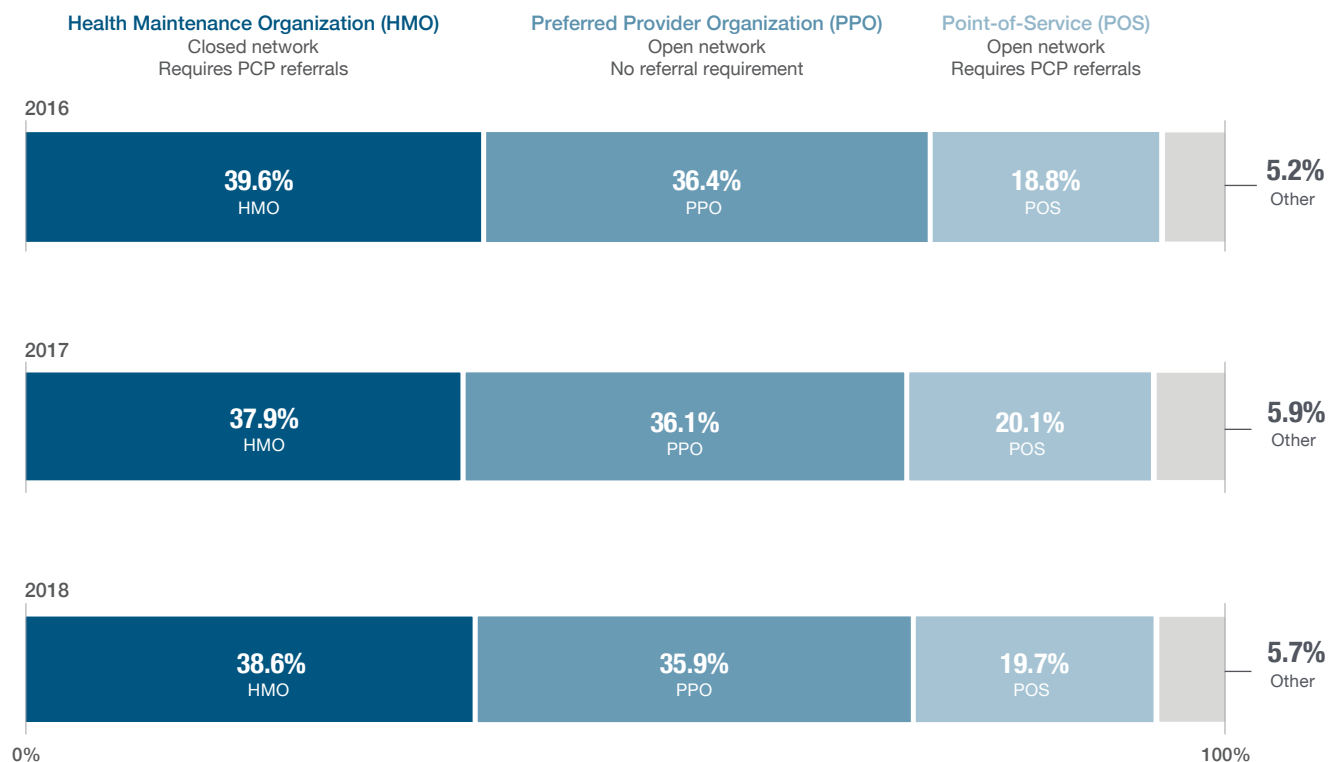
Private Commercial Contract Enrollment

Insurance product types play a role in determining the breadth of provider networks for members as well as primary care provider (PCP) referral requirements.

Between 2016 and 2018, the distribution of insurance product types remained relatively unchanged. Nearly three-quarters of members were enrolled in HMO (38.6% of all members) or PPO (35.9%) plans in 2018. POS plans, which offer members the flexibility to receive out-of-network care with referral from a PCP, covered 19.7% of members.

An additional 5.7% of private commercial contract members were classified in “Other” product types, which include Exclusive Provider Organization (EPO) and Indemnity plans.

Enrollment by Product Type, 2016-2018



The distribution of insurance product types remained relatively unchanged from 2016 to 2018, with most members enrolled in HMO or PPO plans.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. See [technical appendix](#).

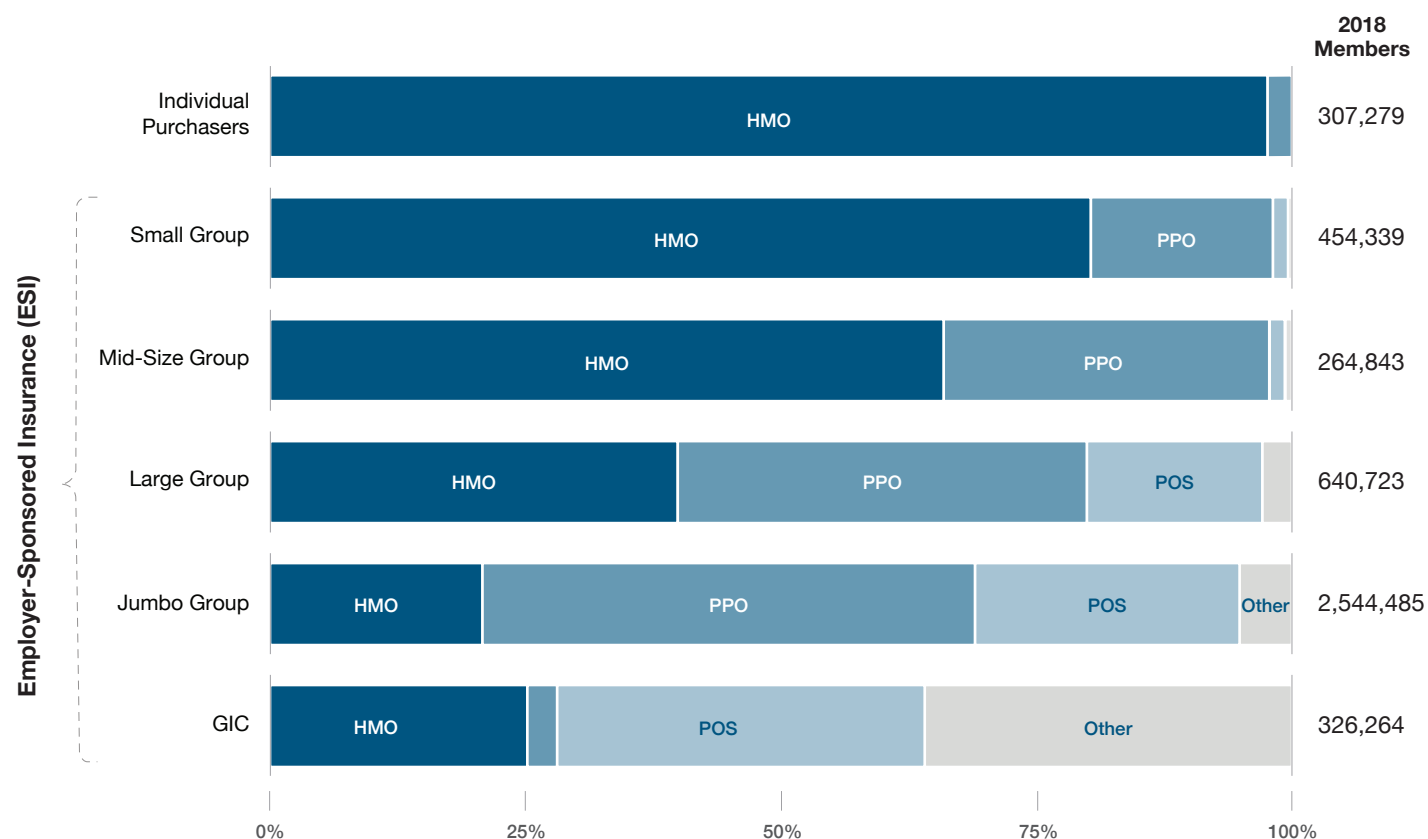
Private Commercial Contract Enrollment

Membership by product type varies across market sectors and, for ESI plans, reflects a combination of choices by employers and health plan enrollees. In general, HMO plan prevalence is higher among smaller employers, while larger employers favor PPO and POS plans with looser network requirements.

In 2018, nearly all (97.7%) individual purchasers were enrolled in HMO plans, compared to just over one-fifth (21.7%) of jumbo group members. POS plans were common among large group (16.3%), jumbo group (25.7%), and Group Insurance Commission (GIC) (38.0%) members, but not in other market sectors.

Data from CHIA's *Massachusetts Employer Survey* suggests that larger employers are more likely than smaller ones to consider provider networks as one of the most important factors in selecting a health carrier or plan.⁵ This may be a factor in the higher prevalence of PPO and POS plans among large and jumbo group enrollees, since these product types offer more expansive networks than traditional HMO plans.

Enrollment by Market Sector and Product Type, 2018



Members of larger employer groups tended to enroll in PPO and POS plans, while smaller employer groups and individual purchasers favored HMO plans.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Jumbo group does not include GIC members. See [technical appendix](#).

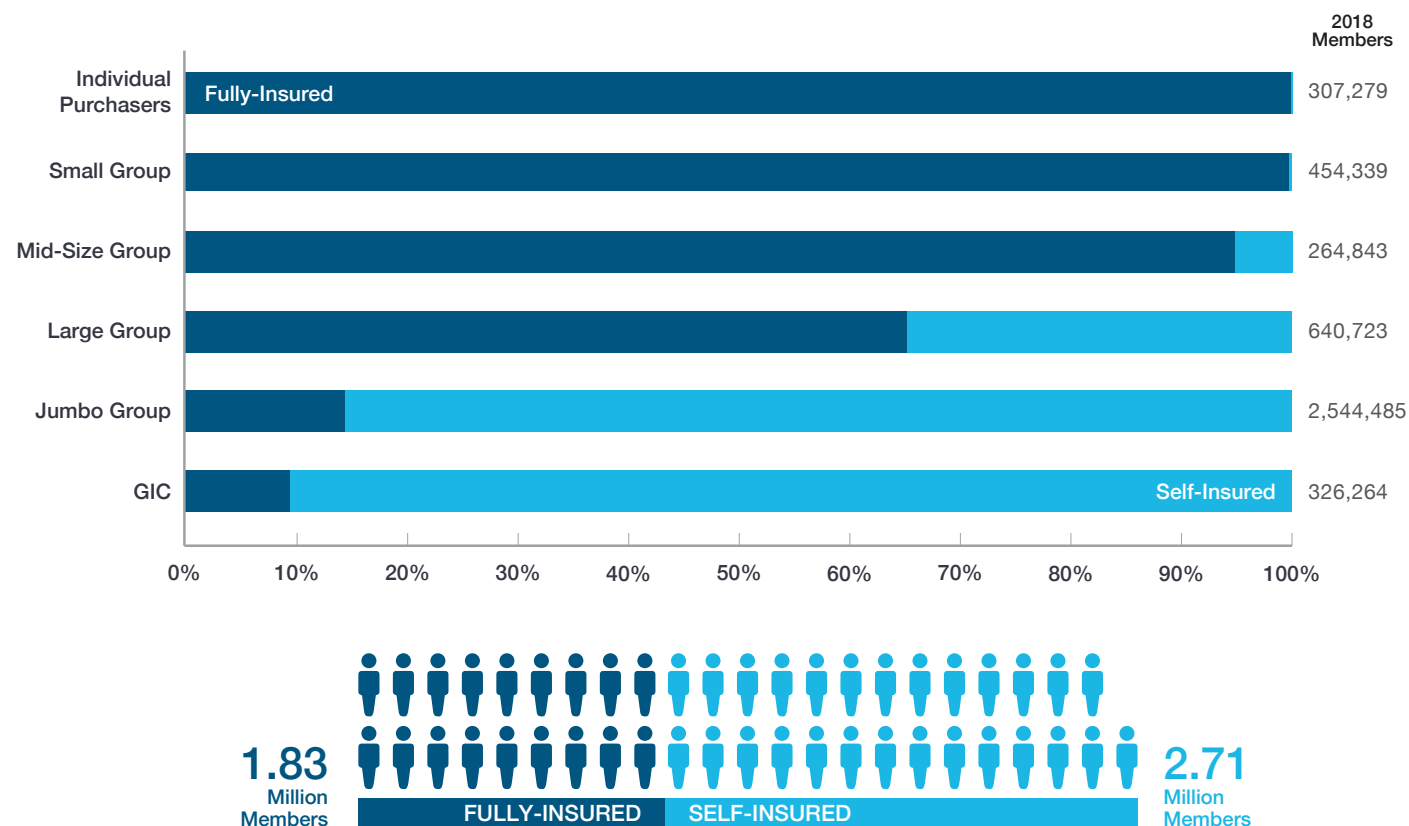
Private Commercial Contract Enrollment

Employers may choose to provide health insurance through fully- or self-insured arrangements. Under fully-insured plans, payers assume the financial risk for covering members' medical expenses in exchange for a monthly premium. Self-insured employers assume financial risk for eligible medical costs incurred by their employees and employee-dependents.

In 2018, fully-insured membership represented 40.3% of the Massachusetts private commercial market (1.83 million members).

Self-insurance was most common among members receiving coverage through jumbo group employers with at least 500 employees (85.2% of members self-insured) and the GIC. In July 2018, the GIC converted all remaining fully-insured plans (offered by AllWays, Fallon, and HNE) to self-insured.⁶ Prior to this change, 17.6% of GIC members had been fully-insured in 2017. Self-insurance among smaller Massachusetts employers remained low.

Enrollment by Funding Type, 2018



In 2018, over 60% of private commercial members were enrolled in self-insured plans, which were most prevalent among larger employer groups.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Jumbo group does not include GIC members. See [technical appendix](#).

Private Commercial Contract Enrollment

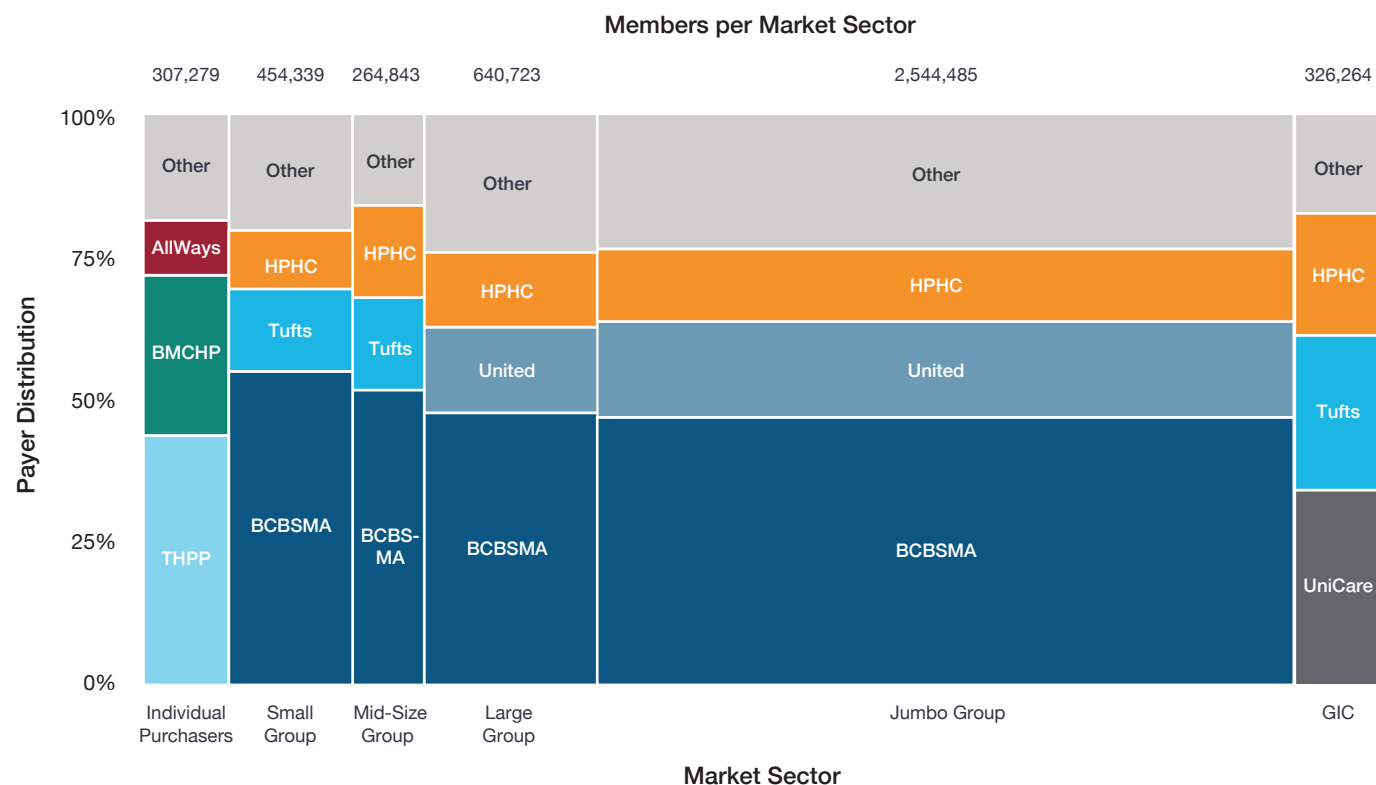
In 2018, BCBSMA remained the largest private payer overall, with 41.8% of the Commonwealth's commercial contract membership. However, payer market share varied across market sectors.

Except for the GIC, BCBSMA maintained the largest market share in every ESI market category, enrolling nearly half of all members. HPHC, Tufts, and United also held significant portions of the ESI market—Tufts among smaller employer groups and United among larger employer groups.

One in three GIC members (33.9%) enrolled in plans offered by UniCare, a subsidiary of Anthem.

BMCHP and THPP, which historically served MassHealth members, together enrolled nearly three-fourths of individual purchasers in 2018. For more information on individual purchasers, see *A Closer Look: Individual Purchasers* on page 57.

Largest Payers by Market Sector, 2018



Within each market sector, at least 75% of enrollment was concentrated among three payers, but the top three payers varied by sector.

Source: Payer-reported data to CHIA.

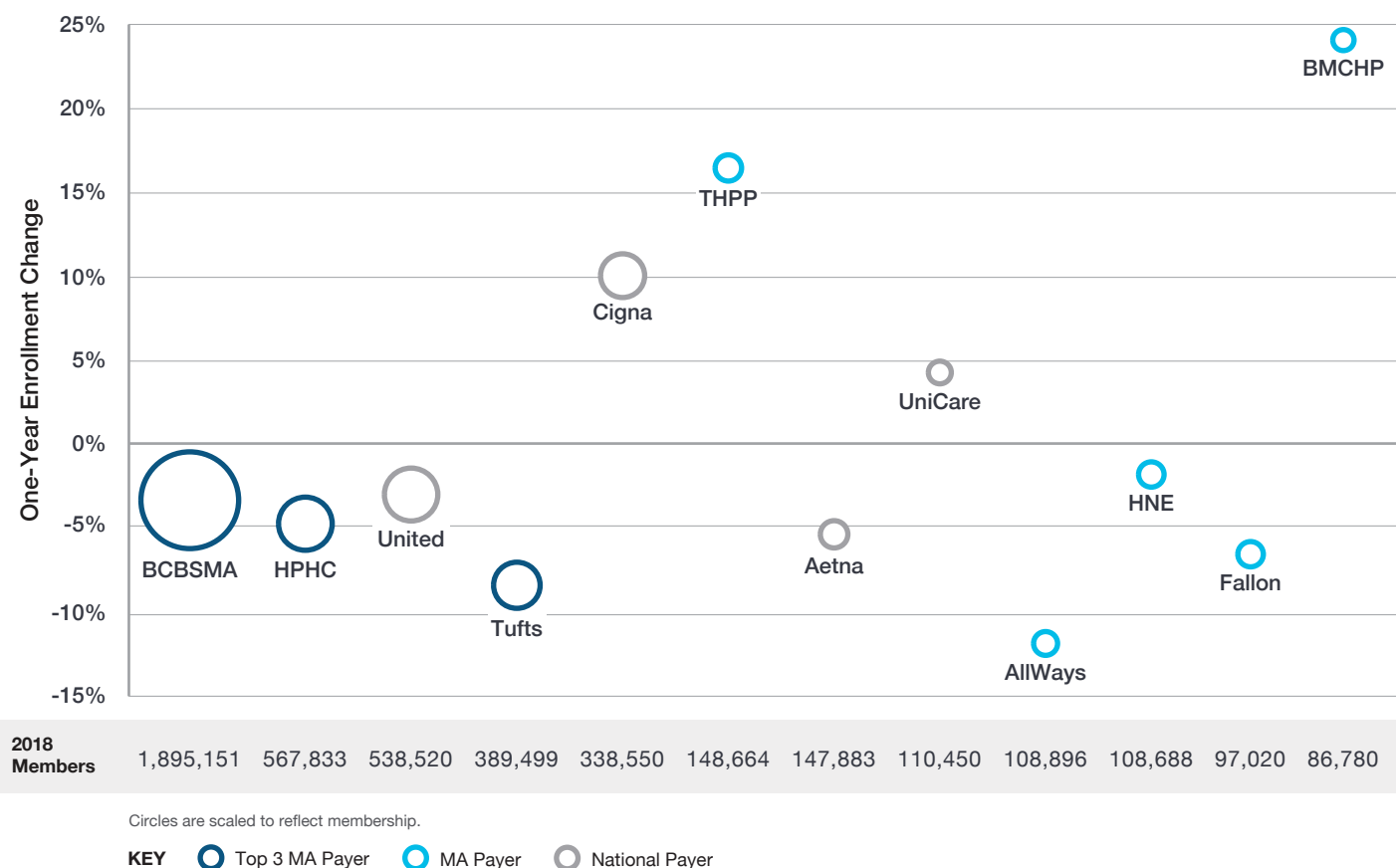
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. THPP is reported separately from its parent company, Tufts. Jumbo group does not include GIC members. See [technical appendix](#).

Private Commercial Contract Enrollment

BMCHP and THPP continued to experience large percentage increases in Massachusetts contract enrollment. BMCHP increased its enrollment by 24.2% to almost 87,000 members in 2018. THPP also grew (+16.3%) to more than 148,000 members. While both payers' membership was concentrated in the individual purchasers sector, THPP also nearly doubled its small group membership in 2018.

The three largest local payers (BCBSMA, HPHC, and Tufts) all reported declining enrollment in 2018. HPHC lost merged market membership for the second year in a row, while BCBSMA and Tufts reported declines among larger employer group enrollment. Compared to the prior year, AllWays lost 11.8% of its overall private commercial membership in 2018; this decline was concentrated within the merged market.

Enrollment Changes by Payer, 2017-2018



BMCHP and THPP continued to be the fastest growing payers, spurred by gains in individual purchaser enrollment.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Data excludes CeliCare and Minuteman Health, which closed in 2017 and fell below the membership reporting threshold for this data request. THPP is reported separately from its parent company, Tufts. See [technical appendix](#).

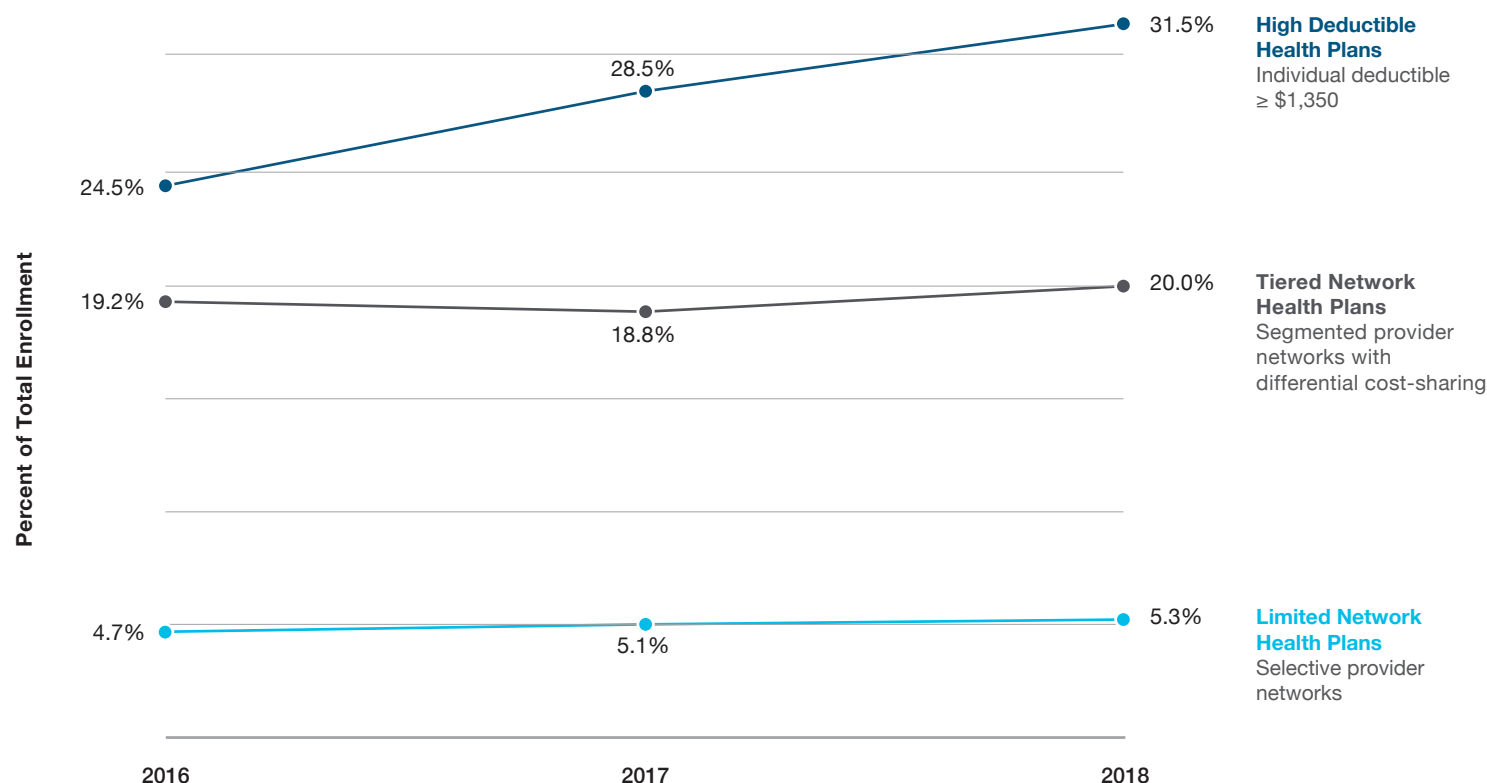
Private Commercial Contract Enrollment

One strategy for lowering medical claims and premium costs is to structure benefits so that members have incentives to seek high-value care. Three benefit design types offered in Massachusetts are high deductible health plans (HDHPs), tiered networks, and limited networks.⁷

From 2017 to 2018, HDHP enrollment increased from 28.5% to 31.5% of the private commercial market, continuing a long-term growth trend. During the same period, enrollment in tiered networks (20.0% of members in 2018) and limited networks (5.3% of members) remained relatively steady.⁸

The GIC has led payer development and adoption of tiered and limited provider networks in the Commonwealth. Apart from the GIC, only 13.8% of members were enrolled in tiered networks and 4.9% were enrolled in limited networks in 2018.

Enrollment by Benefit Design, 2016-2018



Enrollment in high deductible health plans continued to grow, while adoption of tiered and limited networks held steady.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. HDHPs defined by IRS individual plan deductible threshold which was \$1,300 from 2016 to 2017 and \$1,350 in 2018. Benefit design types are not mutually exclusive. United HDHP enrollment data and Fallon HDHP and limited network enrollment data were excluded due to data quality concerns. See [technical appendix](#).

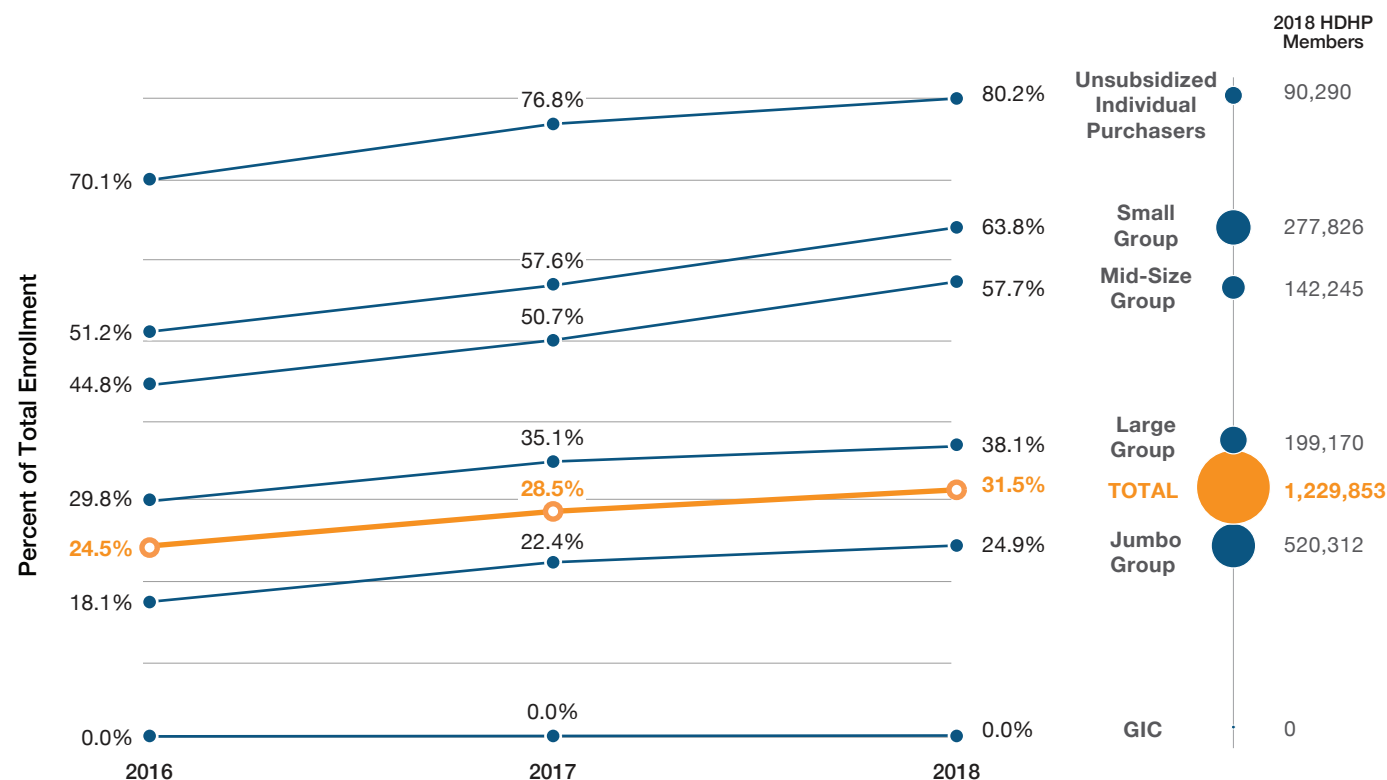
Private Commercial Contract Enrollment

HDHP enrollment grew 8.5% (+96,000 members) between 2017 and 2018. By 2018, 1.2 million Massachusetts members (31.5%) were enrolled in an HDHP. Once again, HDHP penetration increased in every market sector offering these plans.

The majority of HDHP members in 2018 received coverage through larger employers. However, the proportion of members enrolled in HDHPs tended to decrease as employer group size increased, with four-fifths (80.2%) of unsubsidized individual purchasers and more than half of members covered through small and mid-size employers enrolled in an HDHP in 2018.

HDHPs were not offered to GIC or ConnectorCare members.

High Deductible Health Plan (HDHP) Enrollment by Market Sector, 2016-2018



Four out of five unsubsidized individual purchasers enrolled in a high deductible health plan in 2018.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. HDHPs defined by IRS individual plan deductible threshold which was \$1,300 from 2016 to 2017 and \$1,350 in 2018. Fallon and United enrollment data were excluded due to data quality concerns. Data for individual purchasers excludes CeltiCare and Minuteman Health which fell below the membership reporting threshold for this data request. Jumbo group does not include GIC members. ConnectorCare members excluded from graph. See [technical appendix](#).

Private Commercial Contract Enrollment Notes

- 1** Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays—formerly Neighborhood Health Plan), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Cigna, Fallon Health, Harvard Pilgrim Health Care (HPHC—includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data.
- 2** Massachusetts contract members may reside inside or outside Massachusetts; out-of-state contract members are most often covered through a Massachusetts-based employer.
- 3** CeliCare and Minuteman also offered ConnectorCare plans in 2016 and 2017 but did not meet the enrollment threshold to report data to CHIA for this report. Full ConnectorCare eligibility criteria are available from the Massachusetts Health Connector at <https://www.mahealthconnector.org/>.
- 4** Center for Health Information and Analysis, *Enrollment Trends* (Boston, August 2019), <http://www.chiamass.gov/enrollment-in-health-insurance/>.
- 5** Center for Health Information and Analysis, *2018 Massachusetts Employer Survey Summary of Results* (Boston, June 2019), <http://www.chiamass.gov/massachusetts-employer-survey/>.
- 6** Massachusetts Group Insurance Commission. *A Time for Collaboration – Annual Report: Fiscal Years 2017 and 2018*. (Boston, July 2019) https://www.mass.gov/files/documents/2019/07/02/GIC_Annual%20Report%20FY2017-FY2018.pdf.
- 7** These categories are not mutually exclusive. For instance, a plan offering access to a tiered provider network could also be considered an HDHP based on its deductible level.
- 8** THPP classified all its members as enrolled in limited network plans to better reflect the scope of THPP's network in comparison to its parent company, Tufts. This was a change from how THPP's members were classified in earlier CHIA reports.

Private Commercial Premiums

KEY FINDINGS

Annual growth in fully-insured premiums accelerated—from 4.8% in 2017 to 5.6% in 2018.

Most market sectors experienced average annual premium increases between four and six percent in 2018.

Changes in federal subsidies contributed to a 22.0% increase in ConnectorCare premiums; these increases were offset by increased federal premium tax credits.

Most payers reported premium increases from 2017 to 2018. Payers offering ConnectorCare plans had the largest percentage increases in 2018 premiums.

Private Commercial Premiums

CHIA collects and analyzes data on the cost of coverage for Massachusetts private commercial health insurance. Payers submit financial data by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). This chapter covers the period from 2016 to 2018.¹

Private commercial insurance is administered on a fully- or self-insured contract-basis, with employers facing different sets of costs for each funding method. The cost for providing fully-insured coverage is measured by the monthly premium, in exchange for which the payer will assume all financial risk associated with members' eligible medical expenses during the contract period. For self-insured coverage, the employer retains the financial risk for medical claims costs while contracting with a payer or third party administrator to design and administer health plans for its employees and their dependents.

For fully-insured coverage, CHIA reports the full premium amount collected by health plans, inclusive of member contributions, employer contributions (for employer plans), and federal and state premium credits and subsidies (for plans sold to individual purchasers). In 2018, Massachusetts employees directly paid 26-30% of their total premium costs.² Reported premiums reflect a range of enrollment decisions by members and employers, including changing plans during open enrollment to mitigate anticipated premium increases. Premiums have not been adjusted for differences in benefit levels.

Chapter results do not include data for self-insured coverage or for student health plans offered by colleges and universities. The [dataset](#) contains more information on these populations as well as expanded enrollment and financial data for the private commercial market. •

Private Commercial Premiums

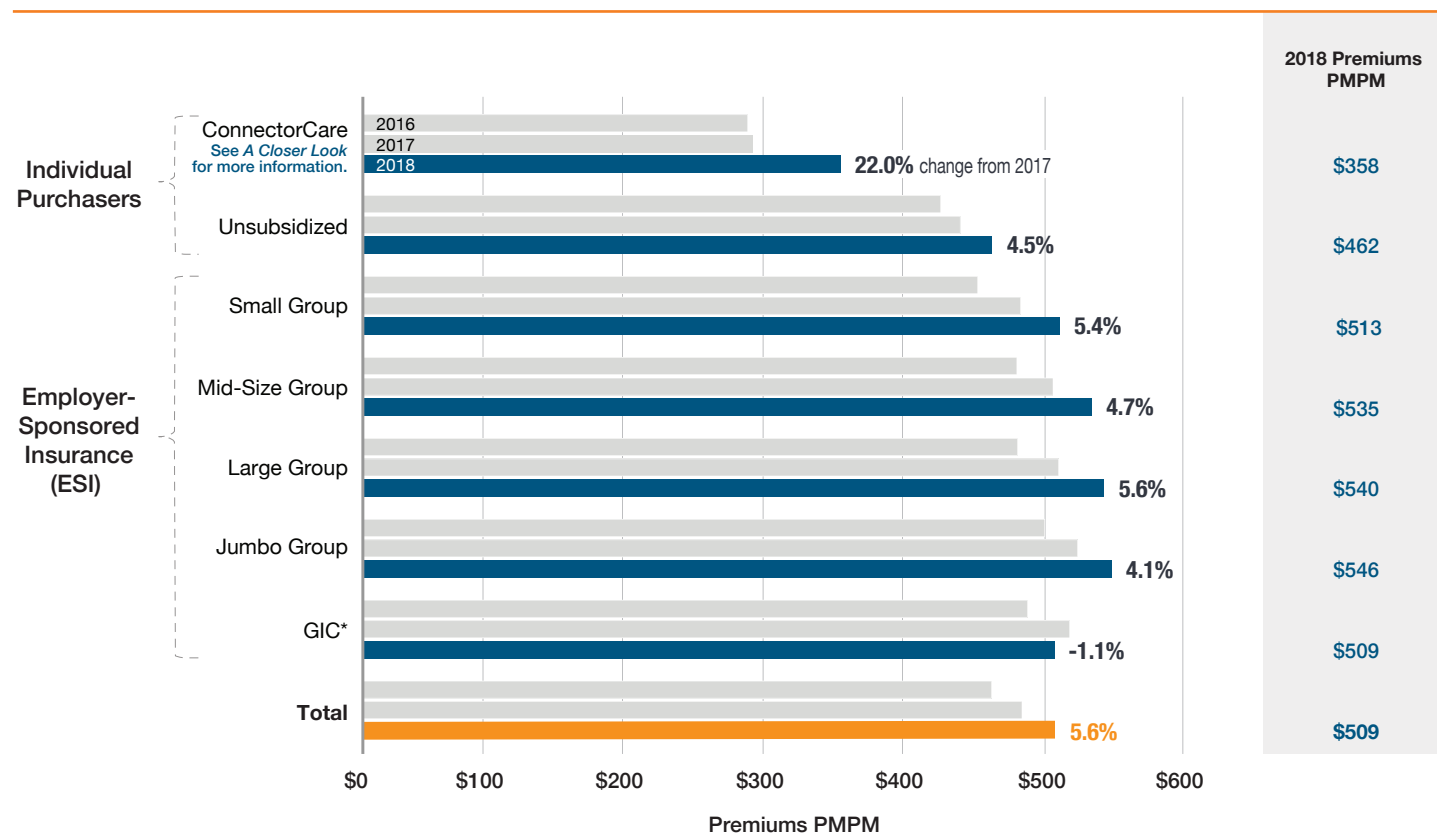
Between 2017 and 2018, fully-insured premiums increased by 5.6% overall to \$509 PMPM, after growing 4.8% in the prior year.

Following the loss of federal CSR subsidies in late 2017, payers compensated by raising premiums for silver tier individual plans (a strategy known as “silver loading”). As a result, pre-subsidy premiums for ConnectorCare plans, which offer reduced premiums and cost-sharing to qualifying low- and moderate-income Massachusetts residents, rose 22.0% in 2018 to \$358 PMPM.³ However, ConnectorCare members were largely insulated from these fluctuations, as federal advance premium tax credits increased to offset the costs. (See *A Closer Look: Individual Purchasers* on page 57.)

Most other market sectors experienced average premium increases between four and six percent from 2017 to 2018.

* GIC premium decrease only reflects data through June 30, 2018, when all plans were converted to self-insured at contract renewal.

Fully-Insured Premiums by Market Sector, 2016-2018



Fully-insured premiums increased by 5.6% from 2017 to 2018. ConnectorCare plans showed the largest percentage increase (+22.0%) due to silver loading.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Premiums are net of MLR rebates (including some estimated rebates for 2018), and all reported premiums were scaled by the “Percent of Benefits Not Carved Out.” Premiums are also not reported net of APTCs, which would further reduce PMPM premiums from the member’s perspective. Data for individual purchasers excludes CeltiCare and Minuteman Health which fell below the membership reporting threshold for this data request. Jumbo group does not include GIC members. Financial data for United was excluded due to data quality concerns. See [technical appendix](#).

Private Commercial Premiums

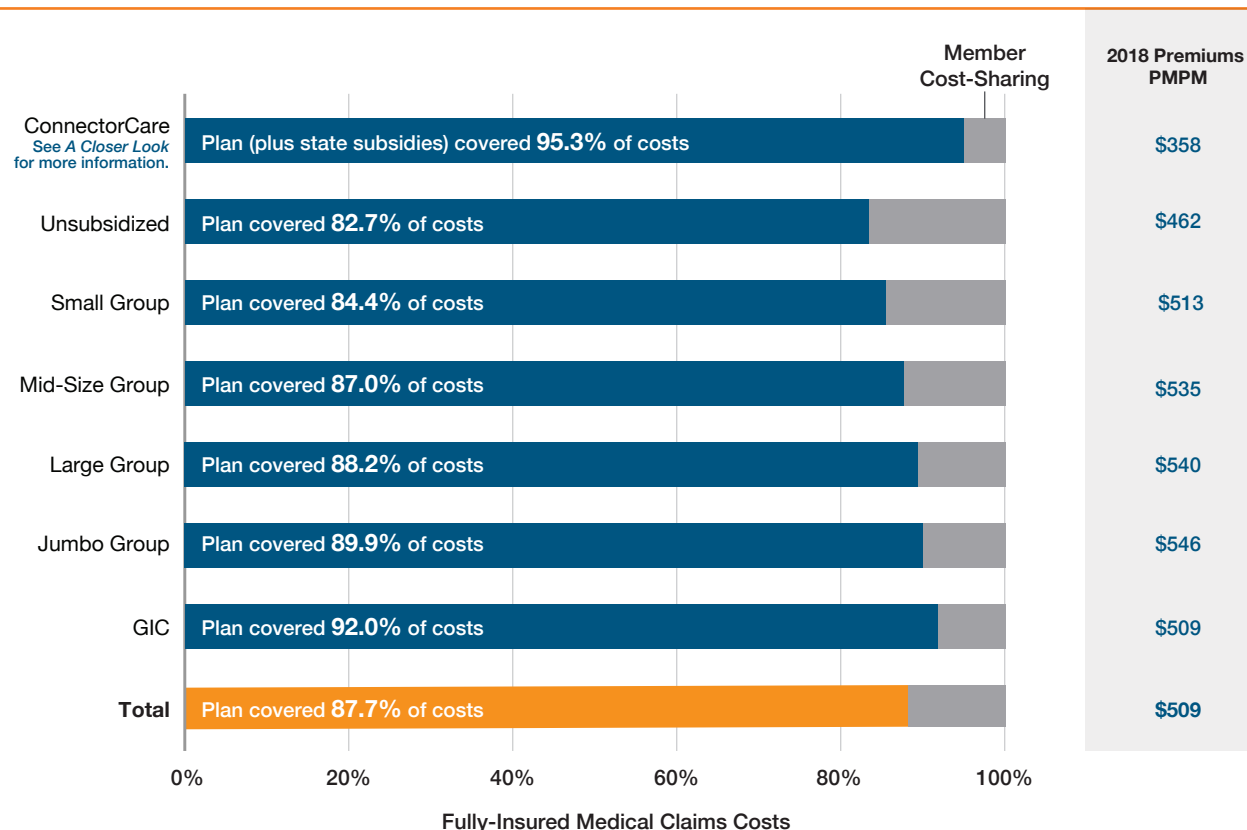
Insurance purchasers (members and/or employers) compare and balance health plan premiums with potential out-of-pocket costs.

In 2018, Massachusetts fully-insured contract members enrolled in plans covering 87.7% of medical costs on average. Benefit levels (measured as the percentage of medical costs covered by the health plan) varied across market sectors. In general, members enrolled through larger employer groups had more of their medical costs covered by their health plans, but this came at the cost of higher premiums.

ConnectorCare plans maintained high benefit levels in 2018 despite the discontinuation of federal CSR subsidies. (See *A Closer Look: Individual Purchasers* on page 57.)

Reported benefit levels do not reflect other factors that may also influence premiums, such as provider network size, claims experience, and efficiencies of scale.

Fully-Insured Benefit Levels by Market Sector, 2018



Members covered through larger employer groups had more generous health insurance coverage, along with higher premiums.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Premiums are net of MLR rebates (including some estimated rebates for 2018), and all reported premiums were scaled by the "Percent of Benefits Not Carved Out." Premiums are also not reported net of APTCs, which would further reduce PMPM premiums from the member's perspective. Benefit levels were calculated as the percentage of total claims that were paid by the payer (i.e., ratio of paid claims to allowed claims). Data for Fallon (benefit levels) and United (benefit levels and premiums) was excluded due to data quality concerns. See [technical appendix](#).

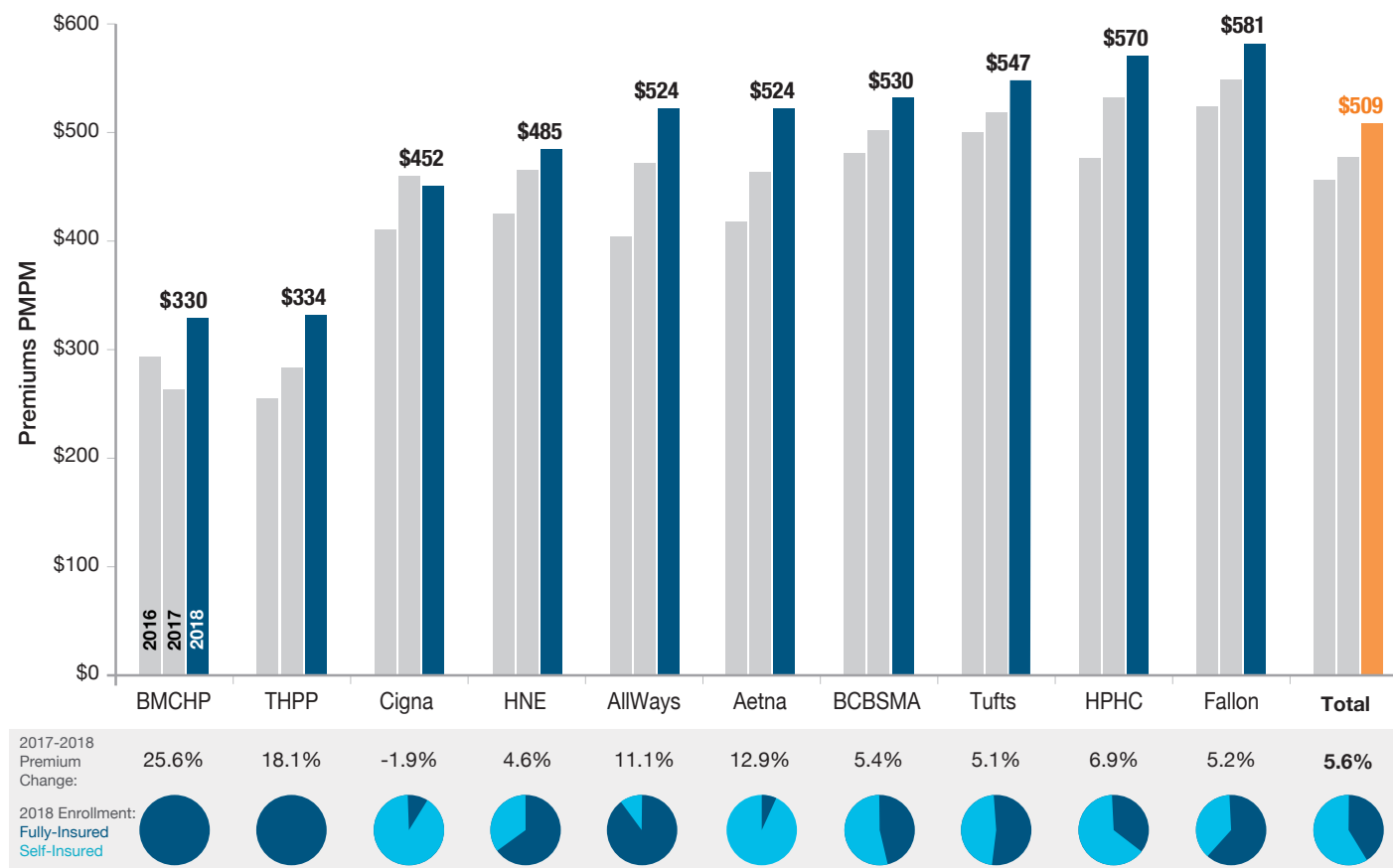
Private Commercial Premiums

Among the 40.3% of Massachusetts contract members with fully-insured coverage, premiums rose 5.6% from 2017 to 2018 to \$509 PMPM.

Average premiums varied greatly across payers, reflecting underlying differences in market sector participation, provider contracting, and other factors. At \$581 PMPM, Fallon reported the highest average premiums in 2018, a 5.2% increase from the prior year.

Once again, BMCHP and THPP — two payers which historically served members of MassHealth and other public programs before entering the commercial market in 2014 — reported the lowest average premiums in 2018. However, they also reported the highest overall premium increases from 2017 to 2018 (+25.6% for BMCHP and +18.1% for THPP), following the discontinuation of federal CSR subsidies for ConnectorCare plans. (State and federal funding filled in the gaps to maintain affordability for ConnectorCare members; see *A Closer Look: Individual Purchasers* on page 57.)

Fully-Insured Premiums by Payer, 2016-2018



Payers that offered ConnectorCare plans reported the largest percentage increases in premiums due to silver loading.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Premiums are net of MLR rebates (including some estimated rebates for 2018), and all reported premiums were scaled by the "Percent of Benefits Not Carved Out." Premiums are also not reported net of APTCs, which would further reduce PMPM premiums from the member's perspective. Data for individual purchasers excludes CeltiCare and Minuteman Health which fell below the membership reporting threshold for this data request. THPP is reported separately from its parent company, Tufts. UniCare is not included in graph due to low fully-insured membership but is included in total. Financial data for United was excluded due to data quality concerns. See [technical appendix](#).

Private Commercial Premiums Notes

- 1** Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays—formerly Neighborhood Health Plan), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Cigna, Fallon Health, Harvard Pilgrim Health Care (HPHC—includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), and UniCare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data. Data for United Healthcare was excluded due to quality concerns.
- 2** Center for Health Information and Analysis, *2018 Massachusetts Employer Survey Summary of Results* (Boston, June 2019), <http://www.chiamass.gov/massachusetts-employer-survey/>.
- 3** Full ConnectorCare eligibility criteria are available from the Massachusetts Health Connector at <https://www.mahealthconnector.org/>.

A Closer Look: Individual Purchasers

Massachusetts residents who do not have access to health insurance through either an employer or government-funded programs can enroll in individual plans via the Massachusetts Health Connector, through a broker, or directly from a payer. Individual purchasers have different plan offerings and/or subsidies available to them depending on income and other qualifying factors.

Individuals with household incomes up to 400% of the Federal Poverty Level (FPL) may qualify for advance premium tax credits (APTCs) to purchase coverage through the Health Connector. Qualifying individuals with household incomes less than or equal to 300% of FPL may also purchase specialized ConnectorCare plans which include CSR subsidies, APTCs, and additional state premium subsidies to lower members' out-of-pocket costs. Individuals above 400% of FPL are not eligible for subsidies or tax credits but may still purchase

unsubsidized plans through the Health Connector or other sources.¹

Following full implementation of the ACA in 2014, Massachusetts and the federal government made approximately equal contributions to CSR subsidies for ConnectorCare members.² However, federal CSR subsidy payments to payers were discontinued in October 2017. Despite the cessation of federal CSR subsidies, payers were still mandated to provide the same reduced cost-sharing levels to ConnectorCare members, resulting in increased costs to payers as they paid a higher percentage of members' medical costs. (Payers continued to receive state CSR subsidy payments.)

In order to ensure that those increased costs were not passed to ConnectorCare members, Massachusetts was one of 43 states that adopted an approach known

as “silver loading.”³ For the 2018 plan year, payers were permitted to raise the premiums of the silver tier plans underlying ConnectorCare such that increased APTCs offset the loss of federal CSR subsidies.

This strategy preserved prior affordability levels for ConnectorCare members while minimizing disruption for other individual purchasers. According to the Health Connector, 42% of APTC-only members, who qualified for APTCs and were not enrolled in ConnectorCare plans, saw their monthly premium contributions decrease as a result of increased APTCs.⁴ Additionally, some members with incomes up to 400% of FPL who would have received \$0 APTCs in 2017 (because the second-lowest cost silver plan premium already met federal affordability standards without additional credits) newly qualified for APTCs in 2018 as Massachusetts silver tier premiums rose, in some cases lowering their overall member premium contributions.⁵ However, individuals with silver level coverage in 2017 who didn’t qualify for ConnectorCare or APTCs in 2018 largely switched to other metallic tiers or sought off-exchange coverage directly from payers (where alternative silver plans without loading were available).⁶

This section continues the analysis of data presented in the preceding two chapters, with an additional focus

on the effects of silver loading on individual purchasers. Findings are based on enrollment, premiums, and aggregated claims data submitted by payers for 2016 through 2018. Due to limitations in payer data reporting, all individual purchasers enrolled in non-ConnectorCare plans are categorized as “unsubsidized,” including members receiving APTCs. In 2016, there were approximately 8,000 APTC-only members, increasing to approximately 14,000 members by 2018.⁷

Advance Premium Tax Credits (APTCs): Federal tax credits that may either be applied directly to premiums to lower the member’s monthly payments or may be paid in a lump sum as a part of the member’s tax return. APTC amounts are calculated by comparing the individual’s income to the cost of the second cheapest silver tier plan available to them. If the cost of that plan exceeds a specified percent of the member’s income, the federal government pays the difference in APTCs.

Cost-Sharing Reduction (CSR) Subsidies:

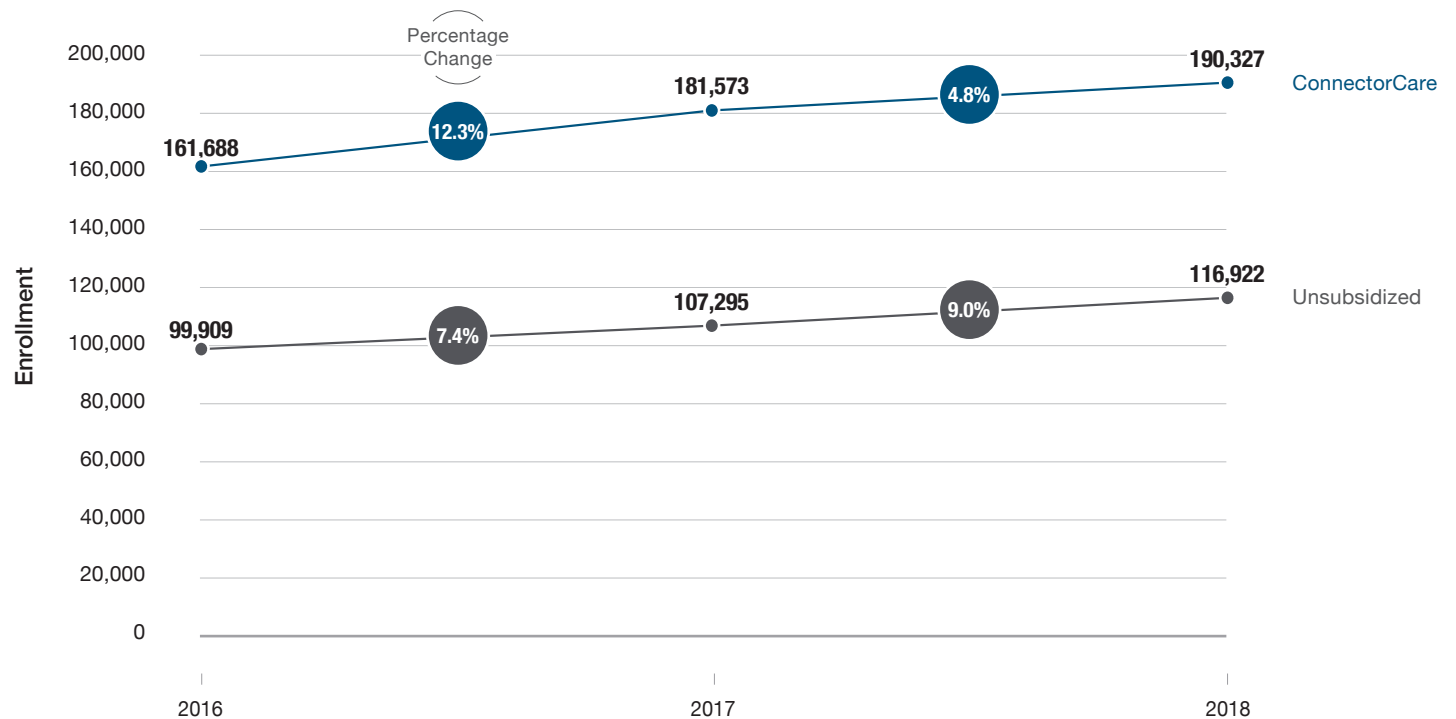
Payments made by the federal government and/or the Commonwealth of Massachusetts directly to ConnectorCare payers to lower copayments and eliminate deductibles and coinsurance in ConnectorCare plans. •

A Closer Look: Individual Purchasers

Between 2016 and 2017, ConnectorCare enrollment grew at a faster rate (+12.3%) than enrollment in unsubsidized individual plans (+7.4%). However, ConnectorCare enrollment slowed the next year, growing just 4.8%, while unsubsidized enrollment increased 9.0%. The increase in APTC amounts available to members with incomes of up to 400% of FPL may have contributed to the acceleration in unsubsidized individual plan enrollment in 2018.

By late 2017, approximately 80,000 members enrolled through the Health Connector were expected to be impacted by silver loading.⁸ These members could choose to purchase the same plan directly from the payer (i.e., off-exchange), switch to a plan with a different metal level, or select a silver plan from a payer that does not offer ConnectorCare coverage in order to avoid paying increased premiums. The Health Connector estimated that at least 82% of these members moved out of an impacted plan during 2018 open enrollment.⁹

Individual Purchaser Enrollment, 2016-2018



Overall individual purchaser enrollment increased by 6.4% between 2017 and 2018. For the first time in several years, increases in unsubsidized individuals exceeded ConnectorCare enrollment growth.

Source: Payer-reported data to CHIA.

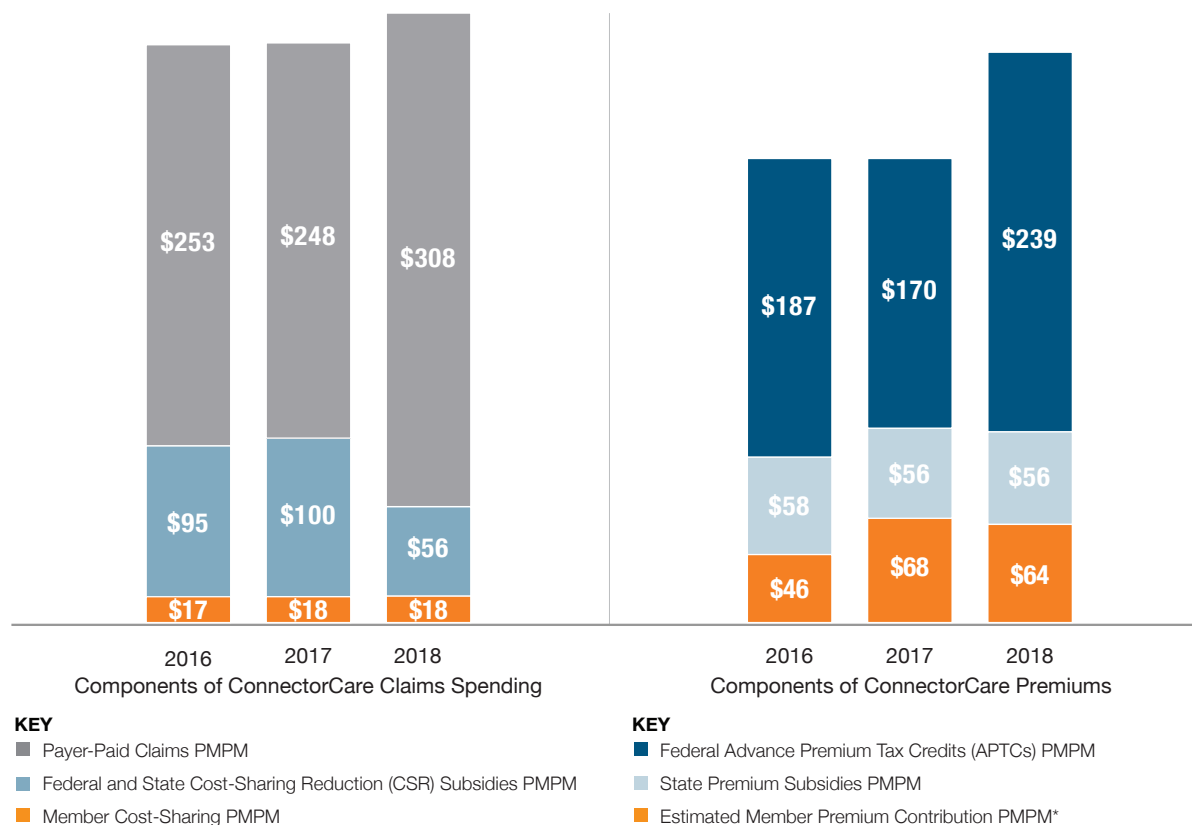
Notes: Based on Massachusetts contract-membership. Data excludes CeltiCare and Minuteman Health which fell below the membership reporting threshold for this data request. See [technical appendix](#).

A Closer Look: Individual Purchasers

Average CSR subsidy payments for ConnectorCare members fell from \$100 PMPM in 2017 to \$56 PMPM in 2018, as federal subsidies ended. Even absent federal CSR subsidies, payers were required to maintain the same benefit levels for ConnectorCare members. Compared to the prior year, payers spent 24.4% more on medical claims in 2018. In order to ensure that ConnectorCare members' out-of-pocket spending remained constant (\$18 PMPM in 2018), payers were permitted to raise premiums to cover the increase in claims costs.

Between 2017 and 2018, the base premiums underlying ConnectorCare plans grew by \$65 PMPM to \$358 PMPM. However, ConnectorCare members also received an average APTC increase of \$68 PMPM in 2018, holding the portion of premiums owed by members stable.

Impact of Silver Loading on ConnectorCare Premiums and Cost-Sharing, 2016-2018



Despite the elimination of federal CSR subsidies, ConnectorCare member cost-sharing held steady in 2018 as payers covered more claims costs. Higher premiums were offset by increases in federal premium tax credits.

Source: Payer-reported data to CHIA, MA Health Connector.

Notes: Based on Massachusetts contract-membership. Premiums are net of MLR rebates (including some estimated rebates for 2018), and all reported premiums, claims, and member cost-sharing amounts were scaled by the "Percent of Benefits Not Carved Out." Member premium contributions are reported net of MLR rebates and were estimated by subtracting payer-reported APTC amounts and Health Connector-reported state premium subsidies from payer-reported premiums. According to the Health Connector, average ConnectorCare member premium contribution amounts gross of MLR rebates were \$61 in 2016, \$73 in 2017, and \$71 in 2018. Fallon data was included in premium totals but was excluded from claims and cost-sharing totals due to data quality concerns. Data excludes CeltiCare and Minuteman Health which fell below the membership reporting threshold for this data request. See [technical appendix](#).

* Member premium contributions for ConnectorCare plans vary based on income. Average member premium contributions across all ConnectorCare plans can vary based on the distribution of income levels of enrollees.

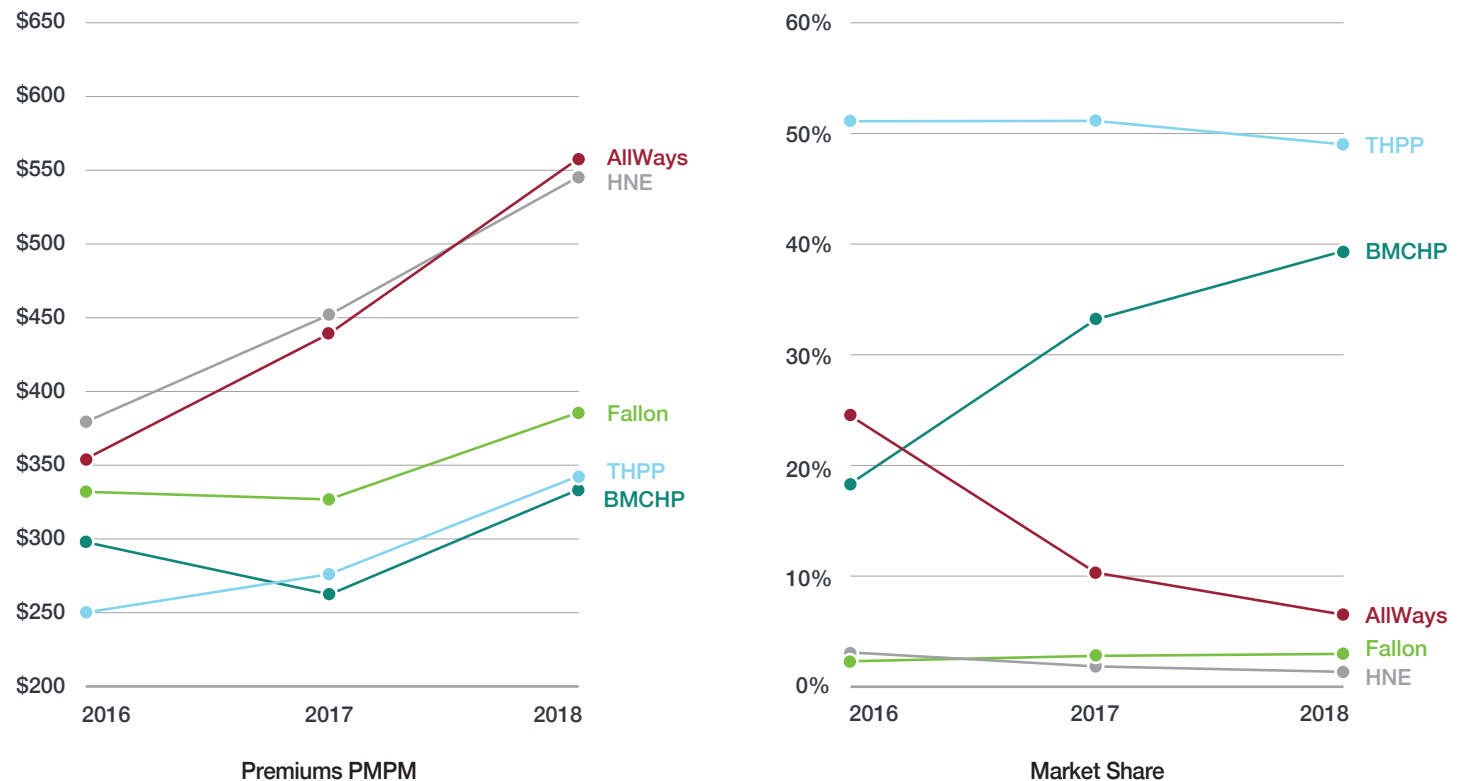
A Closer Look: Individual Purchasers

While ConnectorCare plans share a consistent benefit structure, members consider monthly premiums, geographic availability, and provider networks when selecting a plan.

In 2018, the ConnectorCare market continued to consolidate with just two payers, THPP and BMCHP, enrolling nearly 90% of ConnectorCare members. Average premiums increased 22.0% in 2018, although the cost to members was similar to that in 2017 due to increased APTCs.

AllWays and HNE began raising premiums between 2016 and 2017, prior to the withdrawal of federal CSR subsidies. In 2016, the premium difference between the highest and lowest cost plan was \$130 PMPM; by 2018, the difference was \$225 PMPM. AllWays' market share declined by 18 percentage points between 2016 and 2018, while BMCHP's share increased by 21 percentage points.

ConnectorCare Premiums and Market Share, 2016-2018



BMCHP and THPP, which offered the lowest average premiums, enrolled nearly 90% of ConnectorCare members in 2018.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership. Premiums are net of MLR rebates (including some estimated rebates for 2018), and all reported premiums were scaled by the "Percent of Benefits Not Carved Out." Premiums are also not reported net of APTCs, which would further reduce PMPM premiums from the member's perspective. After accounting for state and federal premium subsidies, ConnectorCare members' contributions were substantially lower than the full premium amounts reported here. THPP is reported separately from its parent company, Tufts. Data excludes CeltiCare and Minuteman Health which fell below the membership reporting threshold for this data request. See [technical appendix](#).

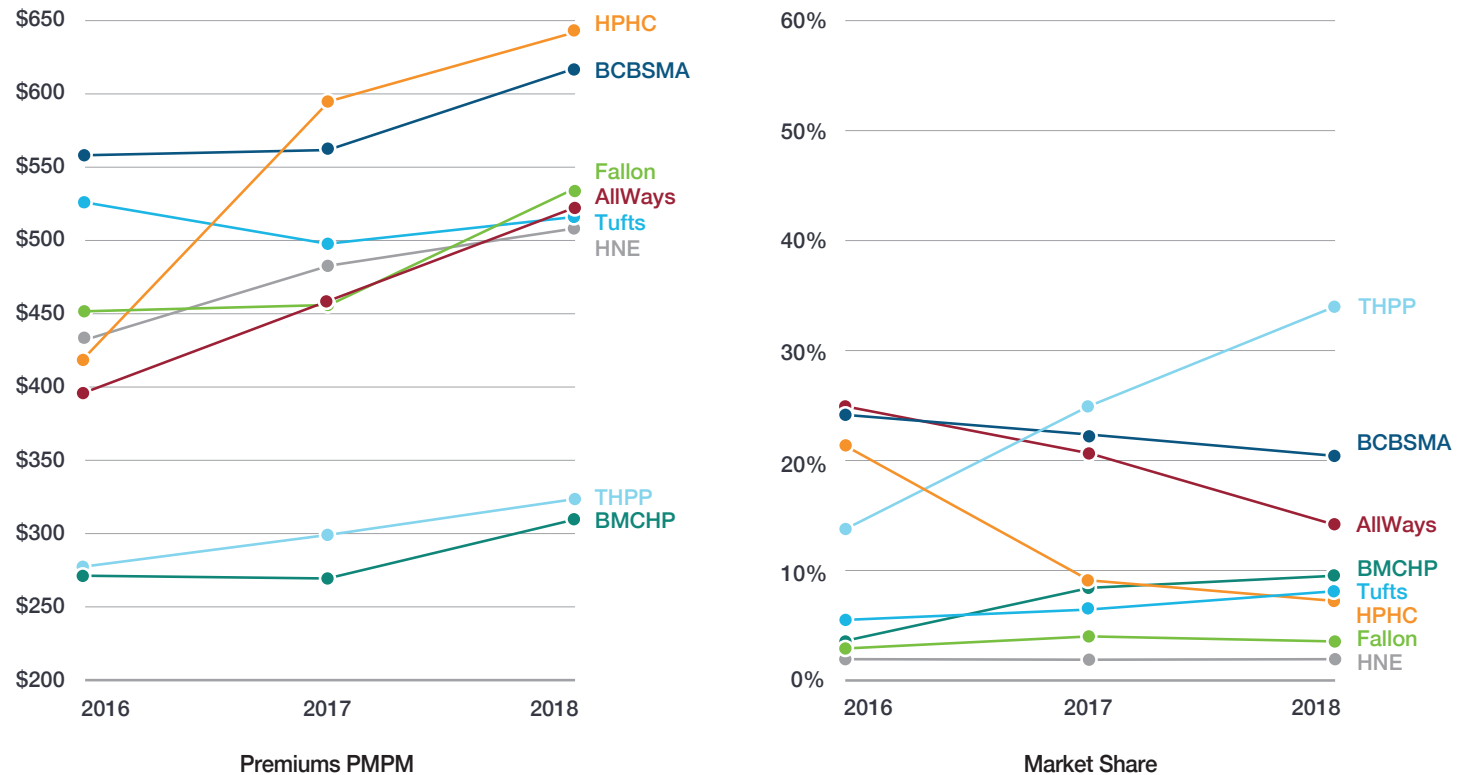
A Closer Look: Individual Purchasers

Compared to ConnectorCare members, unsubsidized individual purchasers navigated a broader range of coverage options. At \$645 PMPM, HPHC's average 2018 premium was more than twice BMCHP's average premium (\$309 PMPM). From 2017 to 2018, unsubsidized premiums increased by 4.5% on average, in part due to silver loading by those payers offering ConnectorCare plans. However, these unsubsidized premiums reflected a broad range of benefit levels, as members chose among catastrophic, bronze, silver, gold, and platinum tier plans.

With so many available options, unsubsidized individual purchasers may react to premium increases by seeking out lower cost plans. Payers with the highest average premiums generally lost market share between 2016 and 2018, while payers offering the lowest average premiums generally gained market share.

Reported premiums include APTCs for members below 400% of FPL. These members would have paid less than the full amounts shown here.

Unsubsidized Premiums and Market Share, 2016-2018



Payers that offered the lowest premiums gained market share between 2016 and 2018, as unsubsidized individual purchasers sought lower cost plans.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership. Premiums are net of MLR rebates (including some estimated rebates for 2018), and all reported premiums were scaled by the "Percent of Benefits Not Carved Out." Premiums are also not reported net of APTCs, which would further reduce PMPM premiums from the member's perspective. THPP is reported separately from its parent company, Tufts. Data excludes CeltiCare and Minuteman Health which fell below the membership reporting threshold for this data request. See [technical appendix](#).

A Closer Look: Individual Purchasers Notes

- 1 Full eligibility criteria are available from the Massachusetts Health Connector at <https://www.mahealthconnector.org/>.
- 2 Office of the State Auditor, “Overview of the Commonwealth Connector Authority,” (Boston, January 2018), <https://www.mass.gov/info-details/overview-of-the-commonwealth-health-insurance-connector-authority#advance-premium-tax-credits-and-subsidies->.
- 3 Katie Keith, “Insurers Can Continue Silver Loading for 2019,” Health Affairs Blog (June 2018), <https://www.healthaffairs.org/doi/10.1377/hblog20180613.293356/full/>.
- 4 Massachusetts Health Connector, “Open Enrollment 2018: Context and Membership Update,” (Boston, December 2017), https://www.mahealthconnector.org/wp-content/uploads/board_meetings/2017/12-14-2017/Open-Enrollment-Membership-Update-121417.pdf.
- 5 Ibid.
- 6 Massachusetts Health Connector, “Open Enrollment 2018 Close-Out,” (Boston, March 2018), https://www.mahealthconnector.org/wp-content/uploads/board_meetings/2018/03-08-18/2018-Open-Enrollment-Update-030818.pdf.
- 7 Center for Health Information and Analysis, *Enrollment Trends* (Boston, August 2019), <http://www.chiamass.gov/enrollment-in-health-insurance/>.
- 8 Massachusetts Health Connector, “Open Enrollment 2018: Context and Membership Update,” (Boston, December 2017), https://www.mahealthconnector.org/wp-content/uploads/board_meetings/2017/12-14-2017/Open-Enrollment-Membership-Update-121417.pdf.
- 9 Massachusetts Health Connector, “Open Enrollment 2018 Close-Out,” (Boston, March 2018), https://www.mahealthconnector.org/wp-content/uploads/board_meetings/2018/03-08-18/2018-Open-Enrollment-Update-030818.pdf.

Private Commercial Member Cost-Sharing

KEY FINDINGS

Between 2017 and 2018, private commercial member cost-sharing increased by 5.6% to \$55 PMPM.

Cost-sharing continued to be higher among unsubsidized individuals and smaller employer groups.

Cost-sharing for HDHPs remained much higher, on average, than for non-HDHPs, but members enrolled in lower deductible plans still experienced a 7.1% increase in cost-sharing in 2018.

Cost-sharing and premiums continued to increase at a faster rate than wages and inflation.

Private Commercial Member Cost-Sharing

CHIA collects and analyzes data on Massachusetts member cost-sharing. Payers submit financial data by market sector, product type (HMO, PPO, POS), funding type, and benefit design type (HDHP, tiered network, limited network). This chapter covers the period from 2016 to 2018.¹

Member cost-sharing includes all medical expenses allowed under a member's plan but not paid for by the payer, employer, or CSR subsidies (e.g., deductibles, copays, and coinsurance). Figures in this chapter are inclusive of members who incurred little to no medical costs as well as those who may have experienced substantial medical costs. It does not include out-of-pocket payments for goods and services not covered by the members' health insurance policies (e.g., over-the-

counter medicines, vision, and dental care). Member cost-sharing also does not account for employer offsets, such as health reimbursement arrangements or health savings accounts.

CSR subsidies were discontinued federally in late 2017, but the Commonwealth has made efforts to continue providing cost-sharing relief for low-income residents. For more on the impact of CSR subsidies, see *A Closer Look: Individual Purchasers* on page 57.

Chapter results do not include average cost-sharing amounts for student health plans offered by colleges and universities. The [dataset](#) contains more information on this population as well as expanded enrollment and financial data for the full private commercial market. •

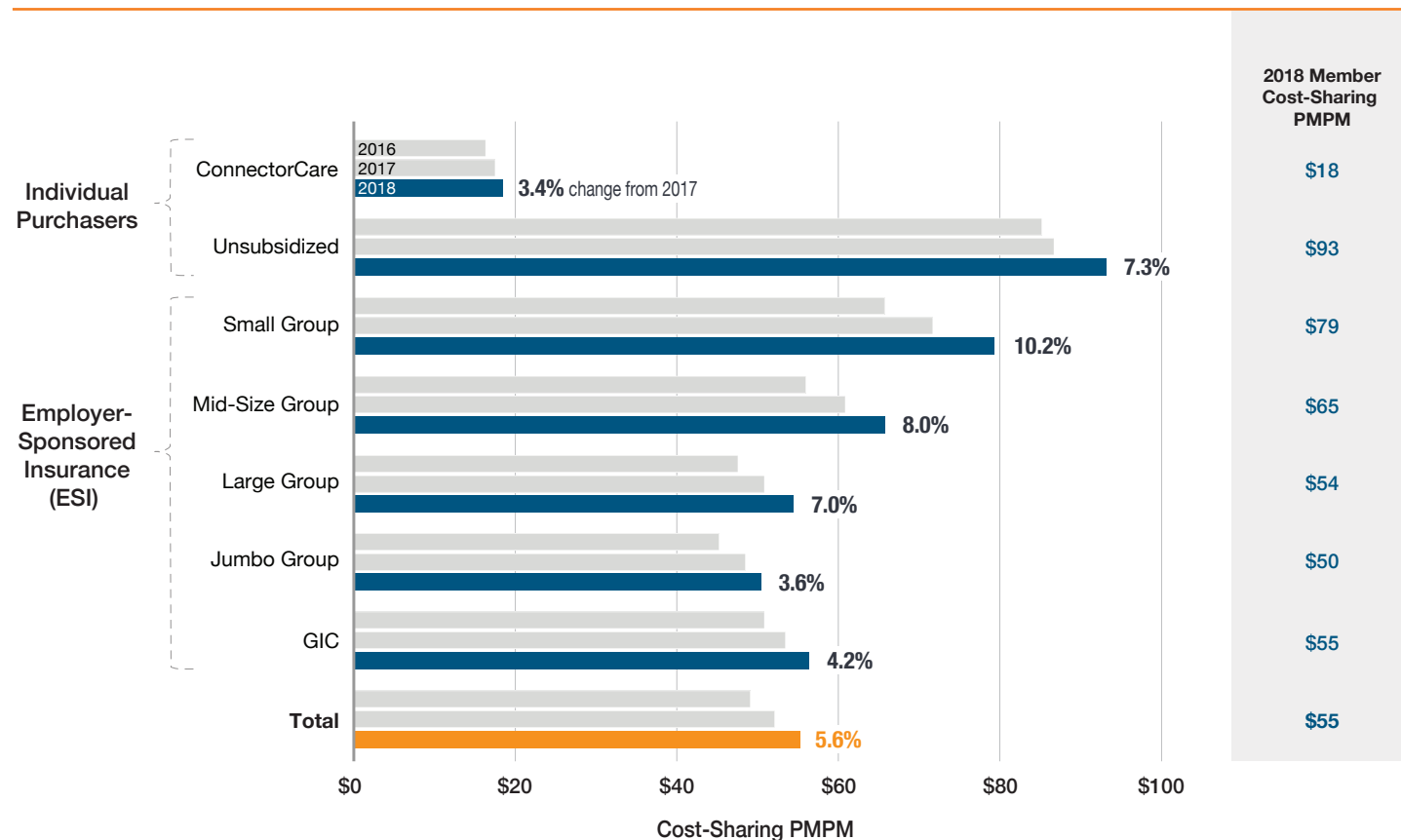
Private Commercial Member Cost-Sharing

After growing 6.5% in 2017, Massachusetts member cost-sharing continued to increase in 2018, rising 5.6% to \$55 PMPM.

Cost-sharing obligations varied by market sector, with members covered by smaller employers paying more, on average, than those covered by larger employers. Unsubsidized individual purchasers paid the most in member cost-sharing in 2018 (\$93 PMPM), followed by small (\$79 PMPM) and mid-size (\$65 PMPM) group members. Small and mid-size group members also experienced higher year-over-year cost-sharing increases (+10.2% and +8.0%, respectively) compared to larger employer groups.

After subsidies, ConnectorCare members benefited from substantially reduced cost-sharing of just \$18 PMPM in 2018. This amount was largely unchanged from the previous year, despite the discontinuation of federal CSR subsidies in fall 2017. (See *A Closer Look: Individual Purchasers* on page 57.)

Cost-Sharing by Market Sector, 2016-2018



Member cost-sharing continued to be higher, and growing faster, among unsubsidized individuals and smaller employer groups in 2018.

Source: Payer-reported data to CHIA.

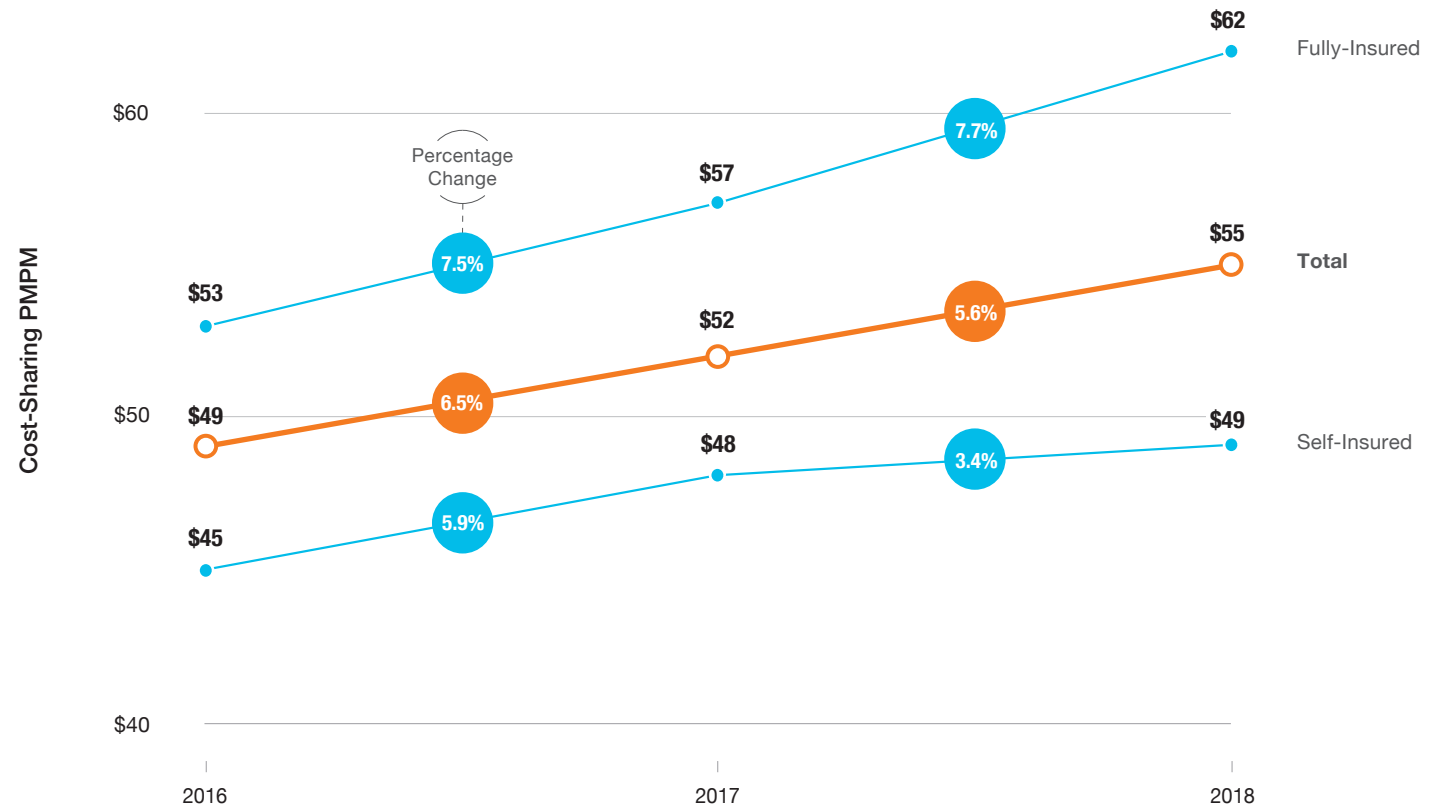
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. All reported cost-sharing amounts were scaled by the "Percent of Benefits Not Carved Out." Financial data for Fallon and United were excluded due to data quality concerns. Data for individual purchasers excludes CeliCare and Minuteman Health, which closed in 2017 and fell below the membership reporting threshold for this data request. Jumbo group does not include GIC members. See [technical appendix](#).

Private Commercial Member Cost-Sharing

Fully-insured members paid more in cost-sharing (\$62 PMPM in 2018) and experienced faster cost increases (+7.7% since 2017) than did members of self-insured plans, who paid \$49 PMPM (+3.4% since 2017).

In part, these differences are likely to reflect cost-sharing trends for the different market sectors that utilized each funding strategy. Self-insured membership was concentrated within the GIC and the jumbo group. On average, plans offered by larger employers tend to have lower deductibles and more generous benefit levels.

Cost-Sharing by Funding Type, 2016-2018



Fully-insured member cost-sharing increased at a faster rate (+7.7%) than for self-insured membership (+3.4%).

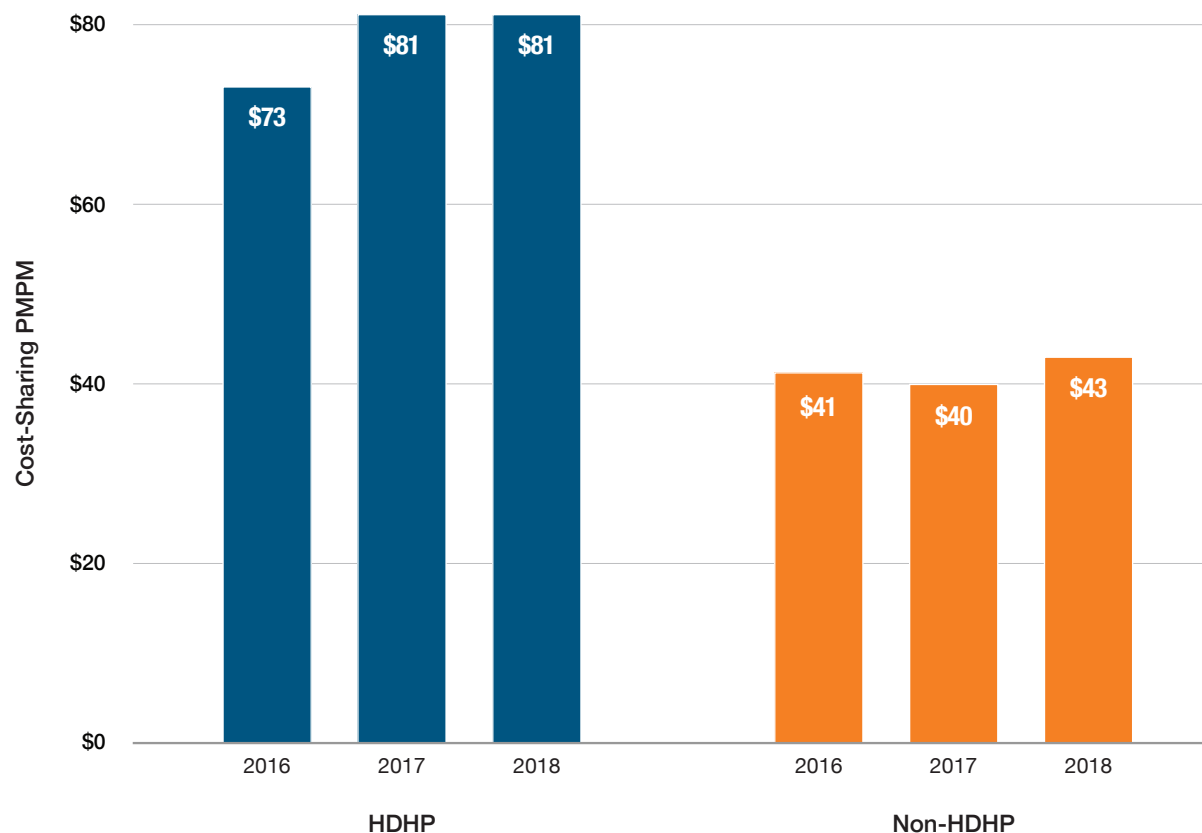
Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. All reported cost-sharing amounts were scaled by the "Percent of Benefits Not Carved Out." Fallon and United financial data were excluded due to data quality concerns. See [technical appendix](#).

HDHPs are designed to incentivize members to reduce unnecessary and low-value care through higher levels of cost-sharing. However, recent studies have shown that HDHP members may reduce all care, including high-value preventive services.² In 2018, HDHP members paid \$81 PMPM in cost-sharing, almost twice what members enrolled in lower deductible plans paid (\$43 PMPM).

Cost-sharing for HDHP members declined marginally (-1.1%) from 2017 to 2018, while members of lower deductible plans experienced higher cost-sharing growth (+7.1% from 2017 to 2018). However, cost-sharing trends may have been impacted by enrollment shifts and other changes during this time.

Cost-Sharing by Deductible Level, 2016-2018



In 2018, members enrolled in high deductible health plans paid \$81 PMPM in cost-sharing, while members of non-HDHP plans paid \$43 PMPM.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. All reported cost-sharing amounts were scaled by the "Percent of Benefits Not Carved Out." Fallon and United financial data were excluded due to data quality concerns. See [technical appendix](#).

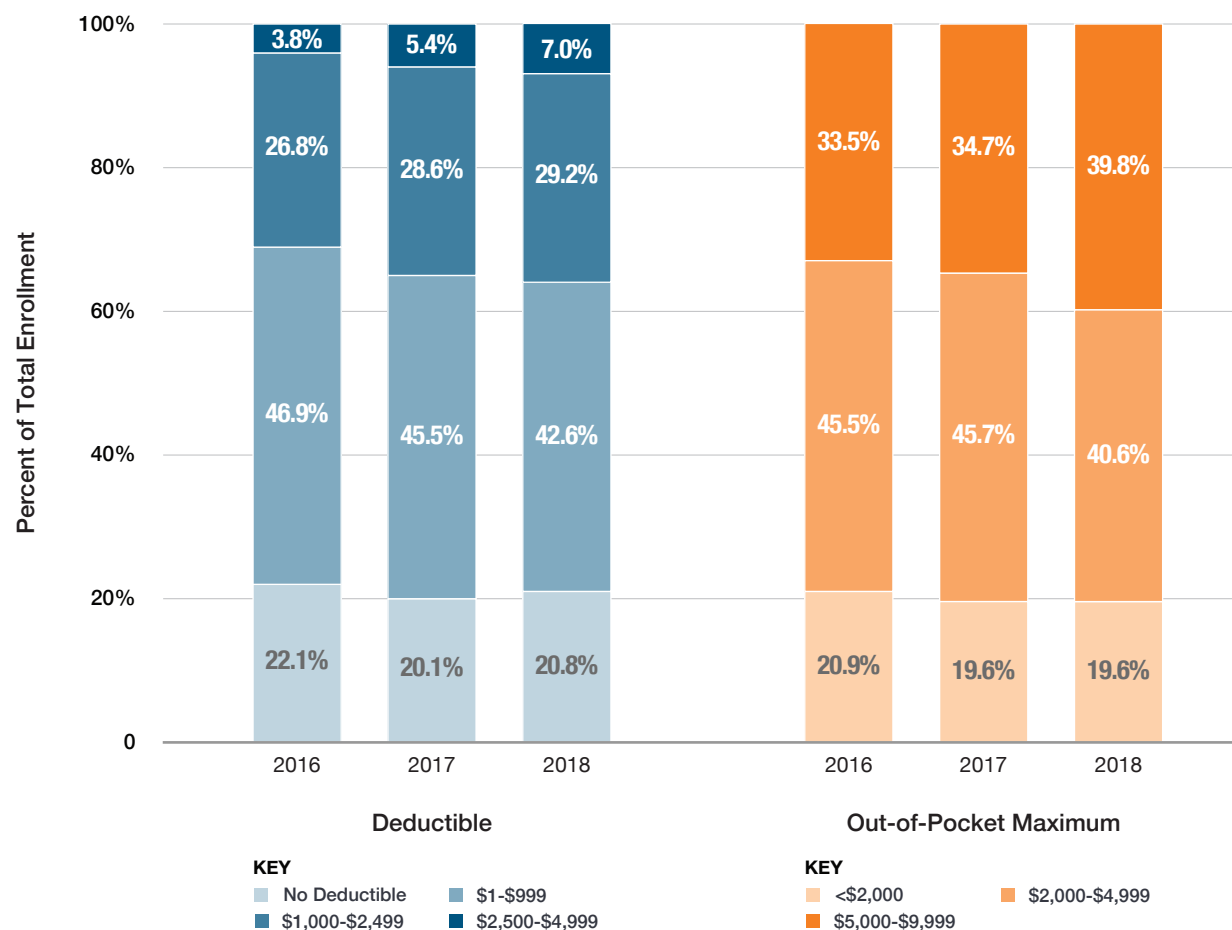
Private Commercial Member Cost-Sharing

For the first time this year, CHIA collected data on plan deductible and out-of-pocket maximum levels as part of the Annual Premiums Data Request. Payers reported membership based on cost-sharing limits for single (individual) policies.

During the period from 2016 to 2018, approximately four out of five Massachusetts commercial members were enrolled in plans with deductibles. In 2018, 42.6% of members had an annual deductible less than \$1,000. The percentage of members with deductibles over \$1,000 grew in each year reported, from 31.0% in 2016 to 36.6% in 2018.

Under the ACA, members are shielded from additional cost-sharing on covered medical services once they have met their out-of-pocket maximum for the plan year. In 2018, 40.6% of members had an annual out-of-pocket maximum between \$2,000 and \$4,999, and 39.8% had an out-of-pocket maximum of at least \$5,000. While this represents the maximum cost-sharing that a member can expect to pay for covered services, many members will pay far less during the year.

Enrollment by Deductible and Maximum Out-of-Pocket Level, 2016-2018



In 2018, over one-third of private commercial members had an annual deductible of at least \$1,000.

Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Fewer than 1% of members were reported to have deductibles of \$5,000 or greater. Data in this graph represents approximately 70% of total private commercial members from 2016 to 2018. Data from AllWays, Cigna, Fallon, United, and HPHC (other than Health Plans Inc.) were excluded due to data quality concerns. See [technical appendix](#).

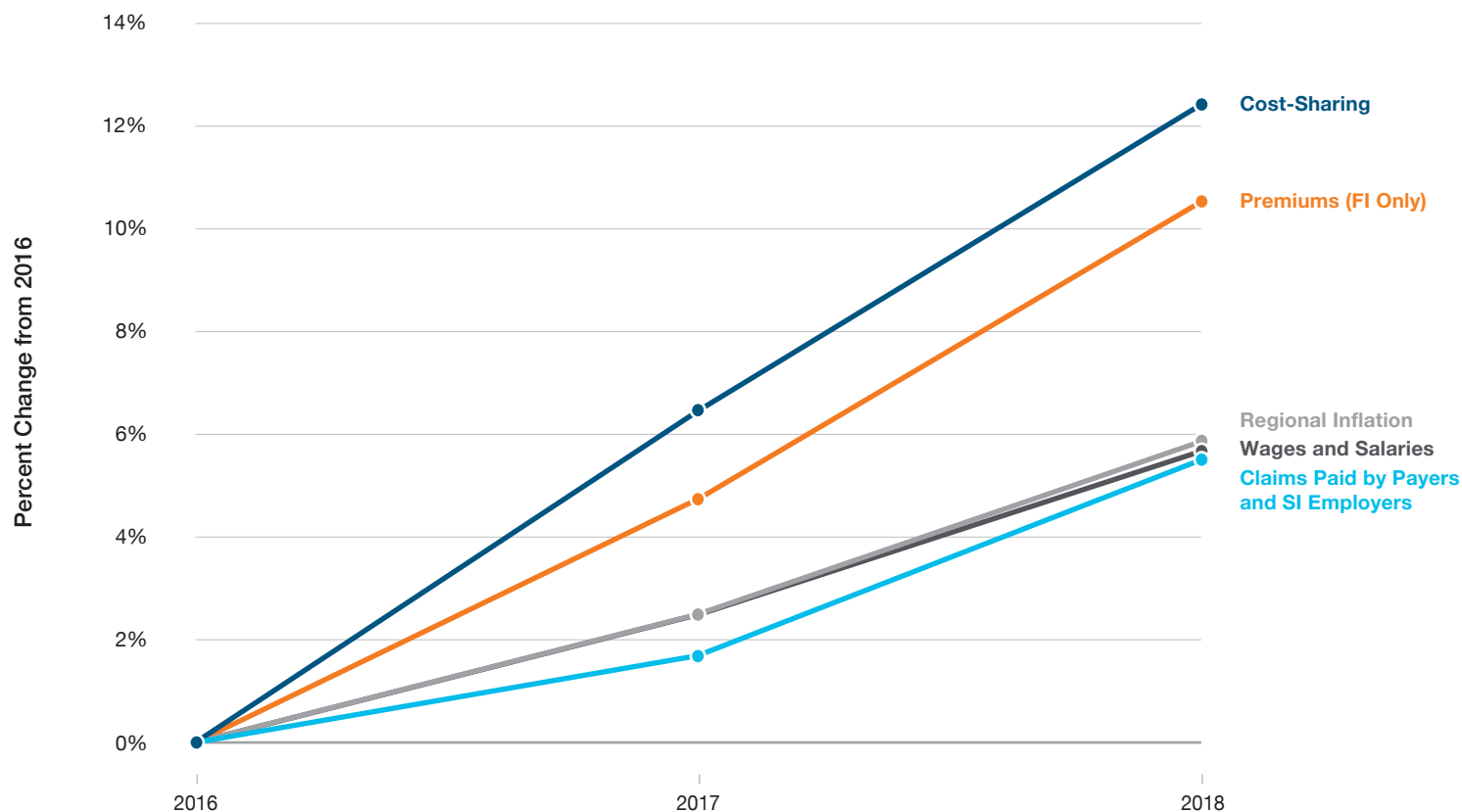
Private Commercial Member Cost-Sharing

Between 2016 and 2018, increases in Massachusetts member cost-sharing and fully-insured premiums outpaced inflation and wage growth.

Over this two-year period, cost-sharing and premiums increased at an average annual rate of 6.1% and 5.2%, respectively, while wages/salaries grew 2.8% per year and regional inflation grew 2.9% per year. Rates reflect compound annual growth for the two-year period (not shown). The portion of medical claims that payers and self-insured employers were responsible for covering grew 2.7% per year, roughly tracking with inflation.

Member cost-sharing and premiums represent major expenses for Massachusetts families and employers. As the gap between these costs and other general economic indicators continues to increase, health plan affordability will remain an important policy consideration.

Private Commercial Insurance Affordability, 2016-2018



Member cost-sharing and premiums increased at a faster rate than wages and inflation between 2016 and 2018.

Source: Payer-reported data to CHIA, Bureau of Labor Statistics.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. All reported cost-sharing, premiums, and claims amounts were scaled by the "Percent of Benefits Not Carved Out." Fallon and United financial data were excluded due to data quality concerns. See [technical appendix](#).

Private Commercial Member Cost-Sharing Notes

- 1 Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays—formerly Neighborhood Health Plan), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Cigna, Harvard Pilgrim Health Care (HPHC—includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), and UniCare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data. Data for Fallon Health and United Healthcare was excluded due to quality concerns.
- 2 Brot-Goldberg, Zarek, et al. “What Does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics.” NBER Working Paper No. 21632, 2015, <http://www.nber.org/papers/w21632>.

Private Commercial Payer Use of Funds

KEY FINDINGS

After paying for fully-insured members' medical costs, payers retained \$74 PMPM from premiums in 2018, a 16.9% increase from 2017.

The proportion of premiums used to pay for medical services (approximately 85%) was similar for both merged market and larger employer plans.

Between 2017 and 2018, premium retention for merged market plans grew 22.5% to \$67 PMPM.

Private Commercial Payer Use of Funds

CHIA collects and analyzes data on Massachusetts payers' administrative costs in the private commercial health insurance market as part of its efforts to monitor and profile overall health plan spending. This chapter covers the period from 2016 to 2018.¹

For fully-insured lines of business, CHIA reports data on “premium retention,” which is the proportion of premium dollars not spent on member medical claims, by market sector (employer size). Payers use retained premium funds to cover administrative expenses, broker commissions, taxes and fees, and any required Medical Loss Ratio (MLR) rebates.

Plans sold to individual purchasers and small groups in the Massachusetts “merged market” are subject to the ACA’s “3R” transfer programs—risk adjustment, reinsurance (through 2016), and risk corridors (through

2016)—that were designed to stabilize premiums and protect against adverse selection during the initial years of the law’s implementation. Reported premium retention amounts in the merged market include the impact of these premium stabilization programs.

Premium retention is similar to the MLR metric, which also quantifies the percent of fully-insured premium dollars spent on medical services. However, the ACA’s MLR formula allows payers to include quality improvement expenses alongside medical claims spending, among other methodological differences.² Under the ACA, payers that do not meet minimum MLR requirements of at least 80% for plans sold to individuals and small groups and 85% for larger group plans must issue rebates to their members. However, Massachusetts requires merged market plans to maintain a higher MLR of 88%.

Premium retention data reported by CHIA is not sufficient to determine whether payers met these MLR thresholds.

While premium retention does not apply to self-insured coverage, the administrative component of self-insured employer plans is included in CHIA's NCPHI measure. (See page 15.) Chapter results also do not include data for student health plans offered by colleges and universities. The [dataset](#) contains more information on student health plans as well as expanded enrollment and financial data for the full private commercial market. •

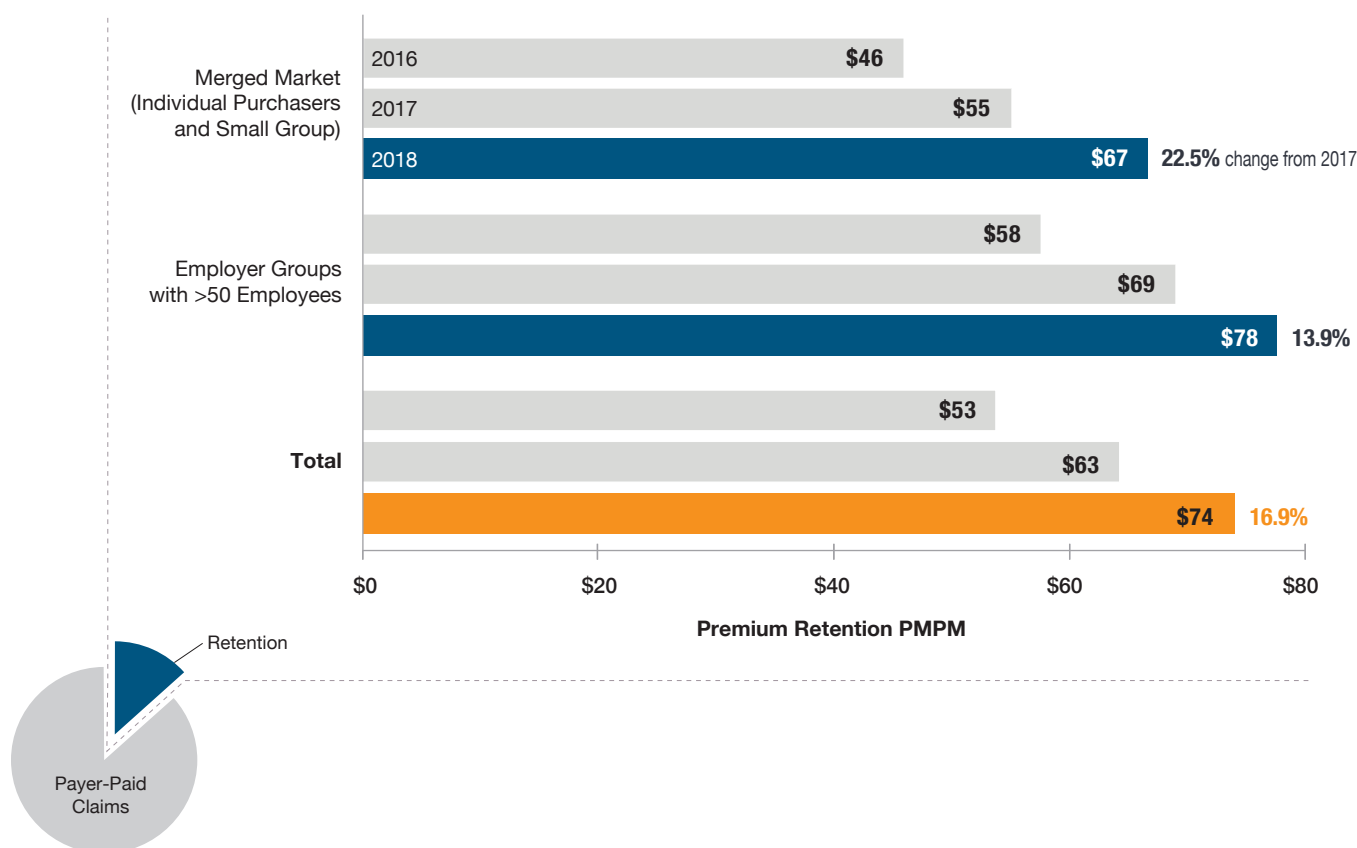
Private Commercial Payer Use of Funds

After paying for fully-insured members' medical costs, payers retained \$74 PMPM from premiums in 2018, a 16.9% increase from 2017. This represented the second year in a row of rapid retention growth, following a 19.2% increase from 2016 to 2017.

In 2018, payers retained \$67 PMPM from merged market premiums and \$78 PMPM from plans sold to employers with more than 50 employees. The proportion of premiums used to pay for medical costs (approximately 85%) was similar for both merged market and larger employer plans. However, higher MLR requirements in the merged market led several payers to issue rebates in this segment.³

These results apply to members with insurance policies contracted in Massachusetts; similar growth trends were observed for Massachusetts residents. (For more information, see NCPHI results on page 15.)

Fully-Insured Premium Retention by Market Segment, 2016-2018



For the second year in a row, premium retention grew rapidly for both merged market (+22.5%) and larger employer group plans (+13.9%) in 2018. This followed several years of slower growth.

Source: Payer-reported data to CHIA.

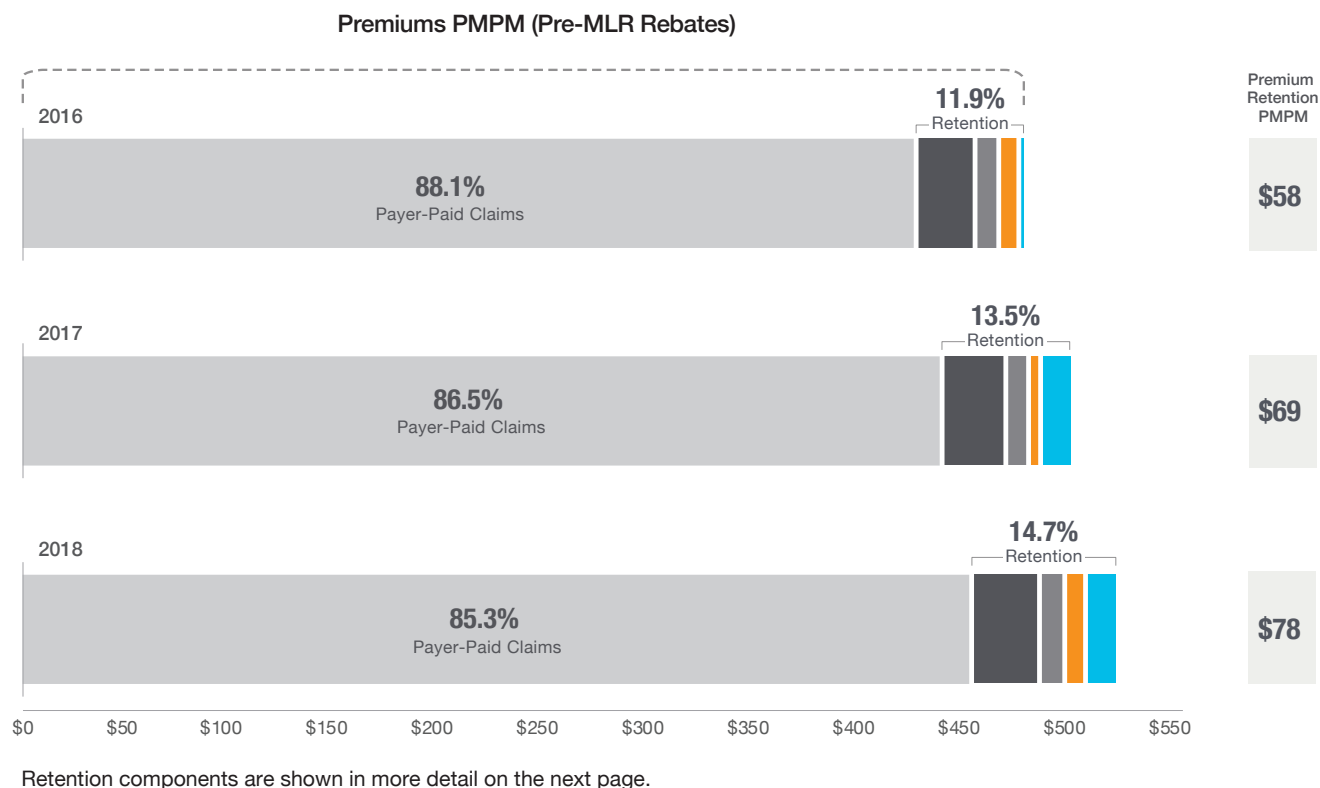
Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums have not been adjusted to account for MLR rebates, as those are a component of retention. Reported premiums, claims, and retention amounts have not been scaled by the "Percent of Benefits Not Carved Out." Financial data for Fallon and United was excluded due to data quality concerns. See [technical appendix](#).

Private Commercial Payer Use of Funds

In 2018, for the second consecutive year, a declining portion (85.3%) of earned premiums for larger (non-merged market) fully-insured employer groups was used to pay for members' medical care. Payers retained the remainder (14.7%) to pay for plan administration, broker fees, and premium taxes, among other expenses, with any residual funds representing surplus. Surplus premium funds may be added to payers' capital reserves as protection against future losses.

Payers consider expected costs for the year ahead when setting premium levels. When payers' medical claims liability grows more slowly than earned premiums, retention amounts rise. The proportion of premiums used to pay for medical claims declined from 88.1% of premiums in 2016 to 86.5% in 2017 and 85.3% in 2018. This resulted in payers retaining \$78 PMPM from earned premiums in 2018.

Fully-Insured Payer Use of Premiums (>50 Employees), 2016-2018



After paying for members' medical care, payers retained \$78 PMPM in 2018 to cover administrative costs and other operating expenses.

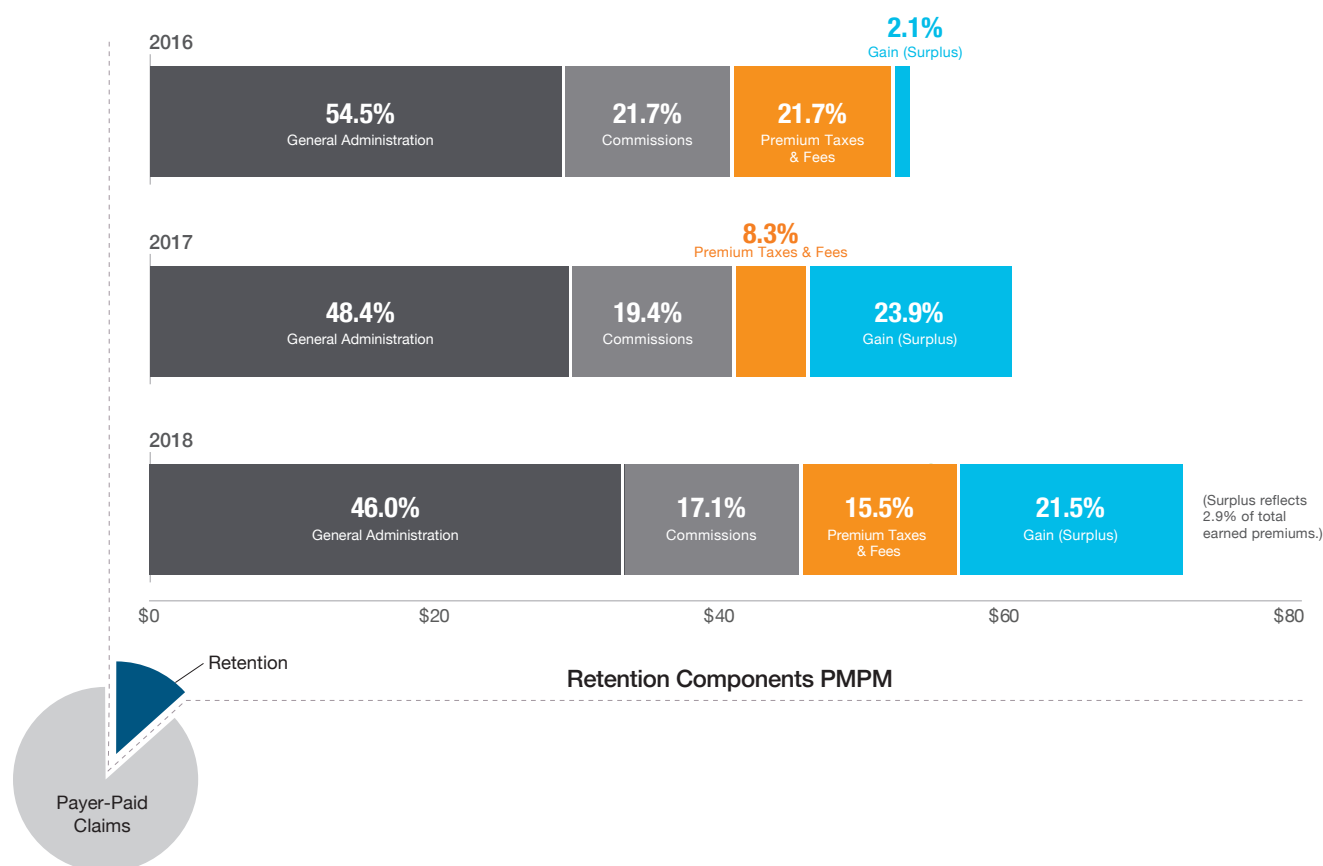
Source: Payer-reported data to CHIA.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums have not been adjusted to account for MLR rebates, as those are a component of retention. Reported premiums, claims, and retention amounts have not been scaled by the "Percent of Benefits Not Carved Out." Financial data for Fallon and United was excluded due to data quality concerns. See [technical appendix](#).

Among fully-insured plans with more than 50 employees, general administrative expenses—including cost of plan design, claims administration, and customer service—accounted for 46.0% of retained premiums in 2018. Average administrative costs increased from \$29 PMPM to \$33 PMPM between 2017 and 2018. However, the proportion of retained premiums spent on general administration decreased by over two percentage points as total premium retention increased.

Premium taxes and fees increased from 8.3% of retention in 2017 to 15.5% in 2018, after the expiration of a one-year moratorium on collection of the ACA's health insurance provider fee.⁴ After accounting for all expenses, payers reported over one-fifth (21.5%) of retained premiums as surplus in 2018; this surplus represented 2.9% of total earned premiums.

Fully-Insured Premium Retention Components (>50 Employees), 2016-2018



In 2018, payers reported a 2.9% surplus from total earned premiums for fully-insured large group plans.

Source: Supplemental Health Care Exhibit (SHCE) payer-reported data.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Data source differs from premium retention reported elsewhere in chapter. Includes data for United. See [technical appendix](#).

Private Commercial Payer Use of Funds

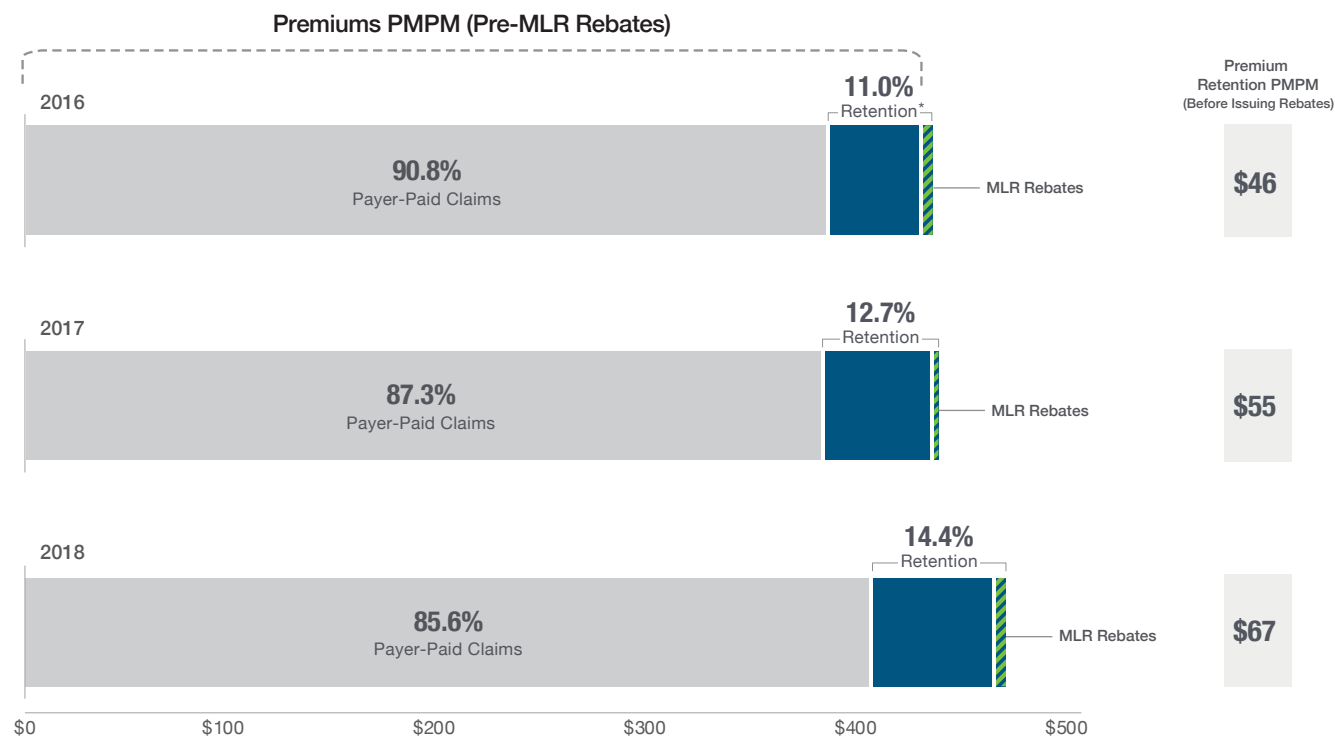
Within the merged market, the percentage of premiums that payers spent on members' medical claims declined each year from 90.8% of premiums in 2016 to 87.3% in 2017 and 85.6% in 2018. This occurred even as the ACA's temporary reinsurance and risk corridor programs ended at the end of 2016, leaving only the risk adjustment program which redistributes funds within the merged market.

By 2018, payers retained a similar proportion of premiums for merged market plans (14.4%) as was retained for larger employer plans (14.7%).

Reported premium retention differs from the ACA's MLR metric in its treatment of quality improvement expenses and premium taxes and fees, among other methodological differences. Premium retention data reported here is not sufficient to determine whether payers met Massachusetts MLR requirements (88% in the merged market). A subset of payers were required to issue rebates to members and employers in each year from 2016 to 2018.

*In 2016, 3R transfers (specifically federal reinsurance payments) injected additional revenue into the merged market; this increased premium retention by 1.8 percentage points. In 2017 and 2018, the only remaining 3R transfer program was risk adjustment, which was revenue neutral across the complete merged market.

Fully-Insured Payer Use of Premiums (Merged Market), 2016-2018



Payers spent 85.6% of merged market premium funds on members' medical claims in 2018, retaining \$67 PMPM to cover administrative costs and other operating expenses.

Source: Payer-reported data to CHIA, CMS, and MA Division of Insurance.

Notes: Based on Massachusetts contract-membership, which may include non-Massachusetts residents. Reported premiums have not been adjusted to account for MLR rebates, as those are a component of retention. Reported premiums, claims, and retention amounts have not been scaled by the "Percent of Benefits Not Carved Out." All percentages expressed as portion of earned premiums (pre-MLR rebates). Percentages in 2016 totaled to greater than 100% due to additional 3R revenue. Due to the timing of SHCE data submissions, more detailed analysis of premium retention components was unavailable for merged market plans. Financial data for Fallon and United was excluded due to data quality concerns. See [technical appendix](#).

Private Commercial Payer Use of Funds Notes

- 1 Chapter results based on commercial contract member data provided by Aetna, AllWays Health Partners (AllWays—formerly Neighborhood Health Plan), Blue Cross Blue Shield of Massachusetts (BCBSMA), Boston Medical Center HealthNet Plan (BMCHP), Cigna, Fallon Health, Harvard Pilgrim Health Care (HPHC—includes Health Plans, Inc.), Health New England (HNE), Tufts Health Plan (Tufts), Tufts Health Public Plans (THPP), UniCare, and United Healthcare. Payers with fewer than 50,000 Massachusetts primary, medical enrollees were not required to submit data.
- 2 “Explaining Health Care Reform: Medical Loss Ratio (MLR),” Kaiser Family Foundation, accessed August 5, 2019, <https://www.kff.org/health-reform/fact-sheet/explaining-health-care-reform-medical-loss-ratio-mlr/>.
- 3 Earned premium differences reported here are prior to paying out any MLR rebates owed to members, since rebates are a component of retention.
- 4 *Consolidated Appropriations Act, 2016*, Public Law 114-113, *U.S. Statutes at Large* 129 (2015): 3037-3038. <https://www.gpo.gov/fdsys/pkg/PLAW-114publ113/pdf/PLAW-114publ113.pdf>.

Quality of Care in the Commonwealth

KEY FINDINGS

Adult patient-reported experiences were similar for most domains in 2017 and 2018, but the score for Adult Behavioral Health increased 10 points in 2018.

The unplanned, all-payer readmission rate for Massachusetts acute care hospitals was 16.1% in SFY 2017—an increase from the previous year.

Six of 36 reporting Massachusetts acute care hospitals fully met all three Leapfrog standards for reducing unnecessary maternity care.

Fewer hospitals performed better than predicted in 2018 on measures of CLABSI, CAUTI, MRSA, and SSI: Colon Surgery than in 2017.

Quality of Care in the Commonwealth

Information about health care quality is central to efforts by consumers, industry decision makers, policymakers, and others working toward realizing a common goal of high-value health care. CHIA monitors and reports on health care quality using measures selected from the Commonwealth's Standard Quality Measure Set (SQMS), as well as other measures of interest to these stakeholders. While the measures in this section do not fully evaluate the quality of health care in Massachusetts, the data presented focuses on several important aspects of care.

This chapter summarizes the performance of Massachusetts acute care hospitals and primary care providers on selected metrics related to quality and

safety. These measures cross different domains of quality assessment, reporting on patient perceptions of their own care experiences, hospital readmissions, maternity-related care, medication safety, and the incidence of health care-associated infections.

CHIA calculates performance on all-payer adult acute hospital readmissions by applying a standard methodology to the Massachusetts Hospital Inpatient Discharge Database.

CHIA acquires data for the other measures included in this chapter from datasets created by other organizations that collect data directly from health care providers, including CMS, the Leapfrog Group, and Massachusetts Health Quality Partners. •

Quality of Care in the Commonwealth

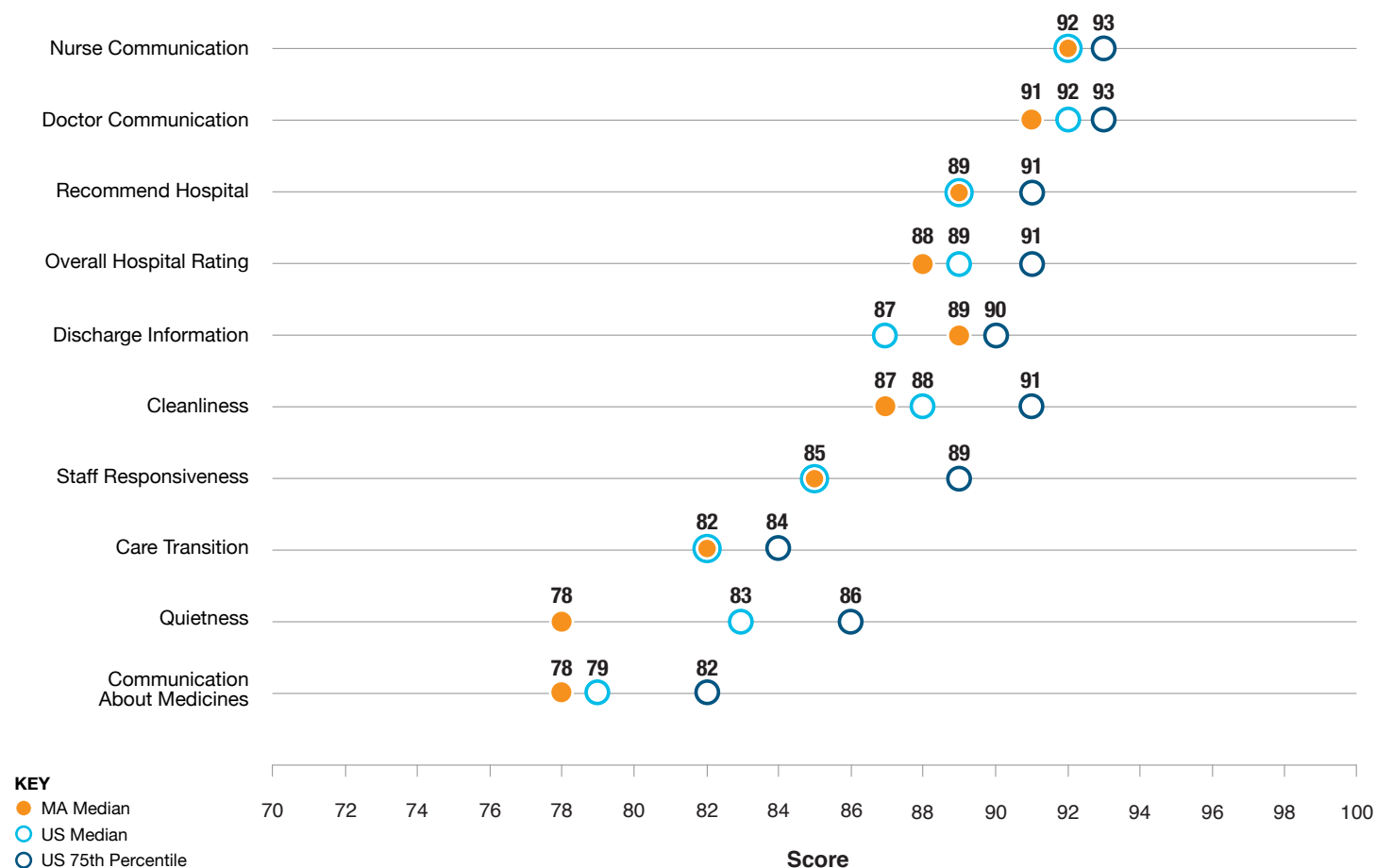
On most measures, patient-reported scores of Massachusetts hospitals were similar to the median scores of patients at hospitals nationally, with Massachusetts scores generally deviating no more than one point from national medians.

However, patient experience ratings of Massachusetts hospitals continued to fall below the patient experience ratings of the top-performing quartile of hospitals nationally.

Massachusetts patients rated Nurse and Doctor Communication more highly than other domains of care (median score of 92 and 91, respectively, out of 100), as did patients nationally (median score of 92 out of 100). Median scores were lowest for Quietness and Communication about Medicines (both 78 out of 100).

In 2018, the median score in Massachusetts for Quietness was five points below the national median score (78 statewide vs. 83 nationally, out of 100).

Patient-Reported Experience During Acute Hospital Admission, July 2017-June 2018



The reported experience of patients admitted to Massachusetts hospitals was similar to the median patient-reported experience nationally; only Quietness deviated notably.

Source: CMS Hospital Compare.

Notes: Includes all payers, patients ages 18+.

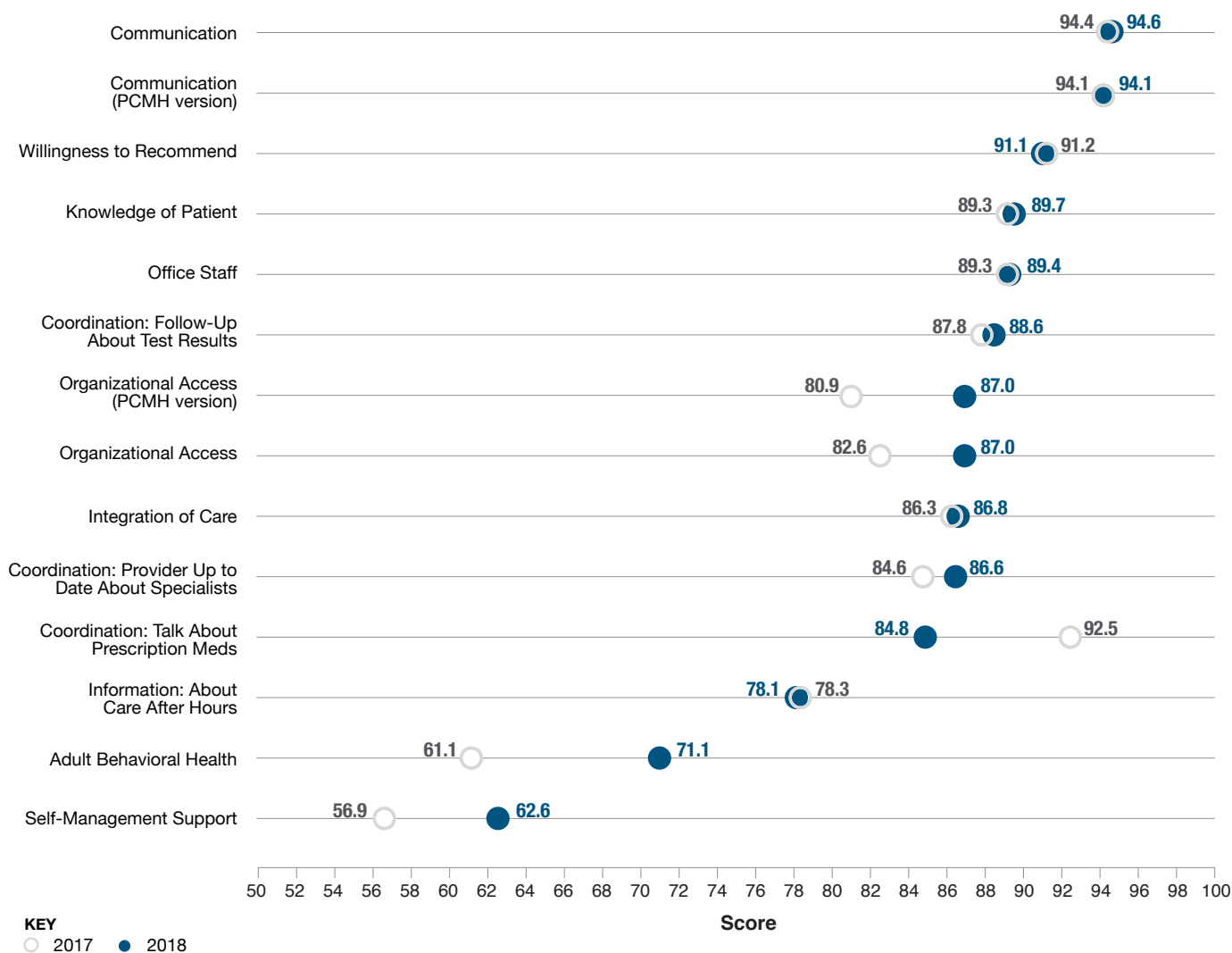
Quality of Care in the Commonwealth

Overall, adult patients expressed positive experiences with their primary care providers in both 2017 and 2018.

Adult patients rated Massachusetts primary care medical groups highest on domains of Provider Communication and Patient Willingness to Recommend Provider. Of the 14 measures included in the survey, Adult Behavioral Health and Self-Management Support were the lowest-scoring measures in 2018 (71.1 and 62.6, respectively, out of 100), though both improved notably from 2017. The score for Coordination: Talking with Patients About Prescription Medications declined by 7.7 points to 84.8 in 2018 after being rated in the top three measures in 2017 at 92.5.

The score for Adult Behavioral Health improved by 10 points in 2018, while the score for Talking with Patients About their Prescription Medications dropped 7.7 points.

Primary Care Patient-Reported Experiences for Adults, 2017-2018



Source: Massachusetts Health Quality Partners, Patient Experience Survey (PES).

Notes: Adult patients ages 18+. Survey conducted on a sample of commercial health plan members.

Quality of Care in the Commonwealth

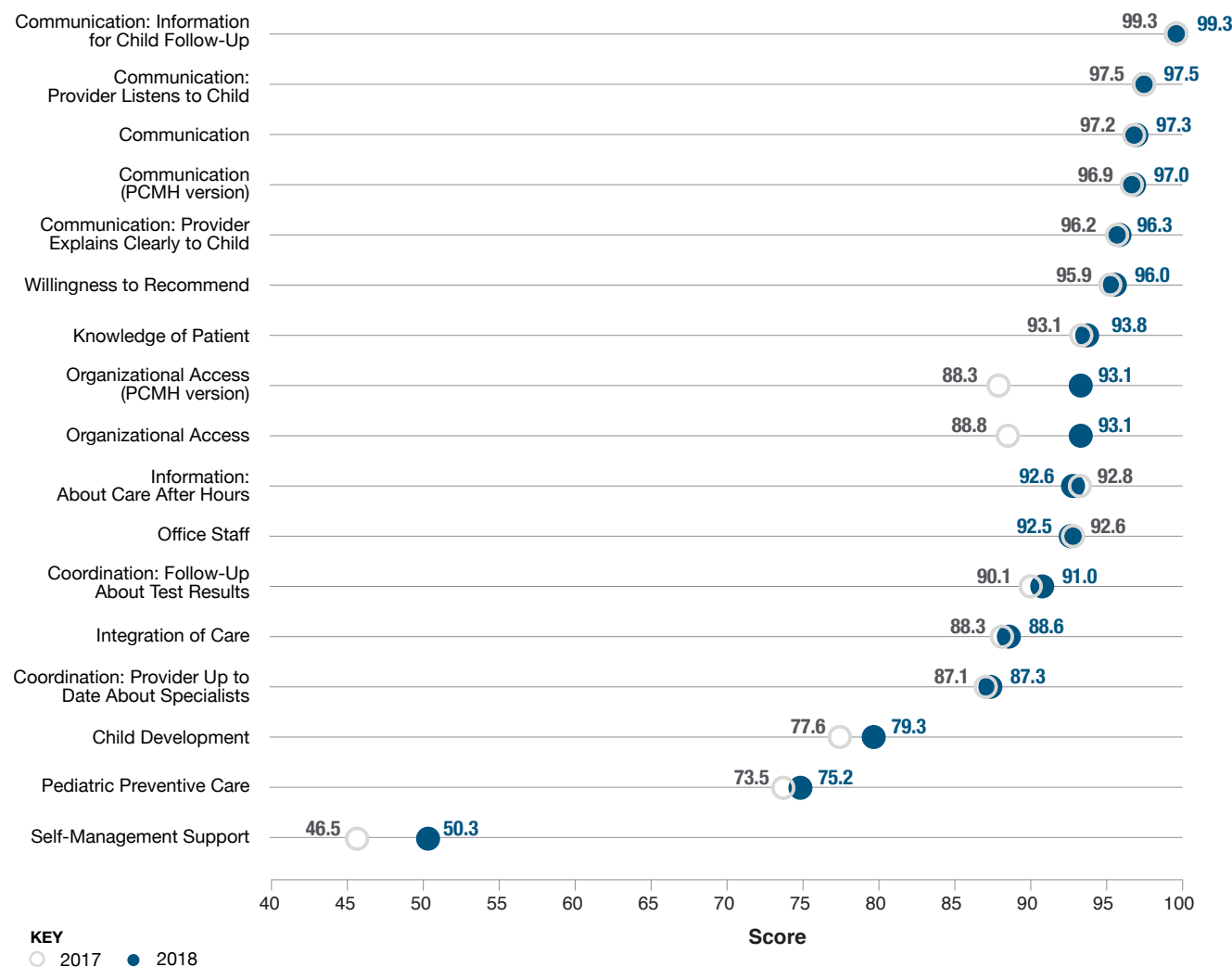
Similar to adult patient-reported experiences with primary care providers, the communication domain was the highest scoring for pediatric patients, particularly for Information for Child Follow-up and Provider Listens to Child (99.3 and 97.5, respectively, out of 100).

In 2018, scores were lowest for measures of Child Development, Pediatric Preventive Care, and Self-Management Support for pediatric patients (79.3, 75.2, and 50.3, respectively, out of 100), though all three scores were improvements from 2017.

Notably, the score for Self-Management Support increased 3.8 points from 2017 to 2018, though this score remains far lower than all other pediatric patient experience measures.

Pediatric primary care patient-reported experiences improved most for measures of Organizational Access and Self-Management Support.

Primary Care Patient-Reported Experiences for Pediatrics, 2017-2018



Source: Massachusetts Health Quality Partners, Patient Experience Survey (PES).

Notes: Pediatric patients ages 0-17; parent or caregiver was surveyed on patient's behalf. Survey conducted on a sample of commercial health plan members. The self-management support measure refers to how supported the caregiver feels in independently managing the pediatric patient's care.

Quality of Care in the Commonwealth

Unplanned hospital readmissions, many of which may be preventable, are costly and could adversely impact patient health and experience of care.

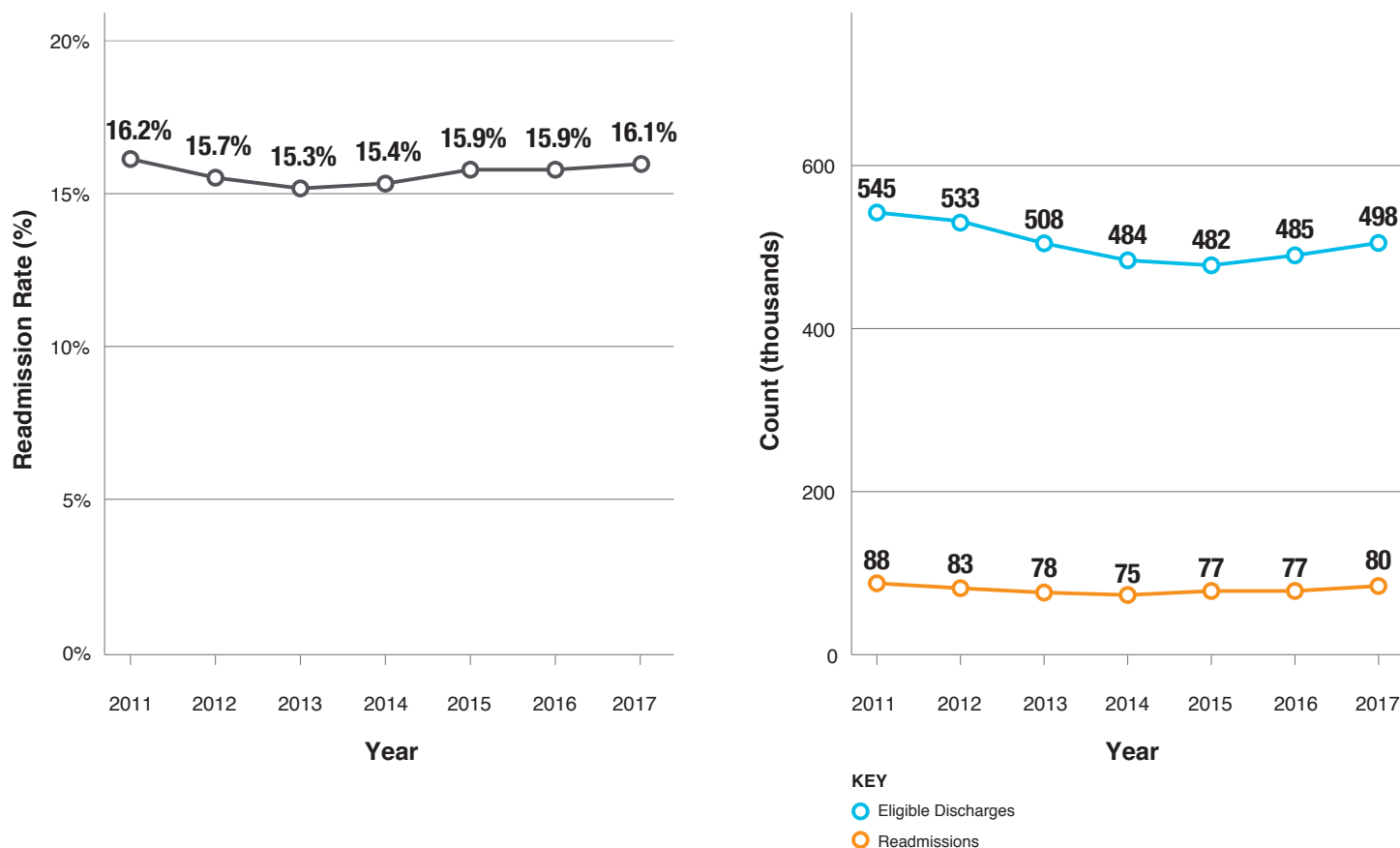
Any unplanned readmission within 30 days of an eligible discharge is counted as a readmission.

After an initial decline from 2011-2013, readmission rates have increased since 2013. The statewide observed readmission rate was 16.1% in 2017.

The total number of statewide, all-payer readmissions also increased, from 77,066 in 2016 to 80,194 in 2017.

Unplanned hospital readmissions increased slightly, from a rate of 15.9% in 2016 to 16.1% in 2017.

Trends in Statewide All-Payer Adult Acute Hospital Readmission Rate, Discharges, and Readmissions, 2011-2017



Source: Massachusetts Hospital Inpatient Discharge Database, July 2010 to June 2017.

Notes: Since this report uses an updated planned readmission algorithm, readmission rates may not exactly match those from earlier reports. Analyses include eligible discharges for adults with any payer type, excluding discharges for obstetric or primary psychiatric care.

Quality of Care in the Commonwealth

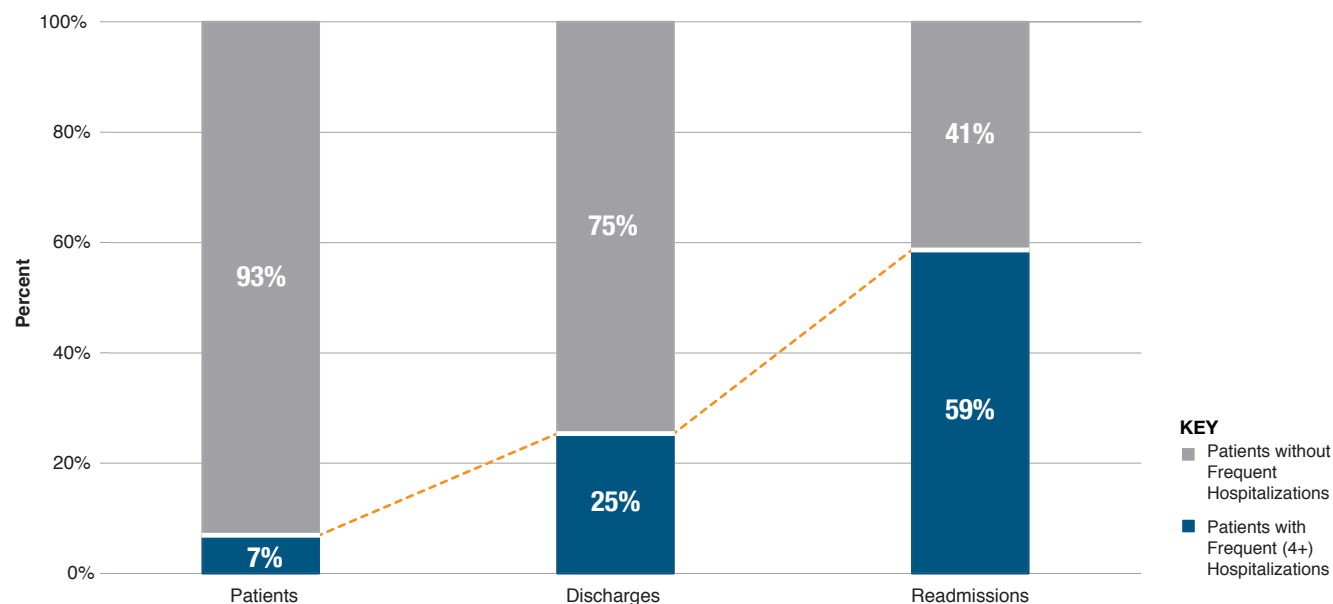
Frequently hospitalized patients are defined as those with four or more hospitalizations within a 12-month period at any point during the most recent three years (July 2014 to June 2017).

During that span of time, seven percent of hospitalized patients had four or more hospitalizations within a 12-month period. Collectively, they accounted for 25% of all hospitalizations and 59% of all readmissions in the state.

The majority (72%) of frequently hospitalized patients were Medicare beneficiaries. Of all frequently hospitalized patients, 86% were covered by either Medicare or Medicaid.

Of the seven percent of patients in 2017 with frequent hospitalizations, the majority (72%) were Medicare beneficiaries.

All-Payer Readmissions Among Frequently Hospitalized Patients, 2015-2017



Percent of All Frequently Hospitalized Patients



Source: Massachusetts Hospital Inpatient Discharge Database, July 2014 to June 2017.

Notes: Analyses include eligible discharges for adults with any payer type, excluding discharges for obstetric or primary psychiatric care.

Quality of Care in the Commonwealth

Childbirth is the most common reason for a hospital admission in Massachusetts.

To reduce potentially harmful and unnecessary maternity procedures, Leapfrog sets standards and collects voluntary data from hospitals to measure performance.

In 2018, six reporting hospitals fully met all three standards, and all reporting hospitals met at least one.

To fully meet the Leapfrog standard for early elective deliveries, no more than 5% of deliveries may be performed early (between 37 and 39 weeks) without a medical reason. The Leapfrog standard recommends that no more than 23.9% of women with low risk pregnancies deliver via cesarean section. Finally, Leapfrog identifies 5% or below as the target for the share of childbirths in which episiotomies are performed.

Rates of Maternity-Related Procedures Relative to Performance Targets, by Hospital, 2018

| | Early Elective Deliveries | C Section | Episiotomy |
|--------------------------|---------------------------|----------------|---------------|
| Leapfrog Standard | ≤ 5.0% | ≤ 23.9% | ≤ 5.0% |

Fully Met Three Standards (6 Hospitals)

| | | | |
|--|------|-------|------|
| Berkshire Medical Center | 0.0% | 16.2% | 1.3% |
| Beth Israel Deaconess Medical Center | 0.0% | 23.5% | 3.1% |
| CHA Cambridge Hospital | 0.0% | 18.7% | 3.4% |
| Cooley Dickinson Hospital | 0.0% | 15.6% | 3.0% |
| Mount Auburn Hospital | 0.0% | 19.3% | 4.0% |
| Signature Healthcare Brockton Hospital | 0.0% | 15.6% | 3.4% |

Fully Met Two Standards (20 Hospitals)

| | | | |
|--|------|-------|------|
| Anna Jaques Hospital | 3.8% | 28.4% | 3.4% |
| Baystate Franklin Medical Center | 0.0% | 27.5% | 1.3% |
| Baystate Medical Center | 3.3% | 33.6% | 3.6% |
| Beth Israel Deaconess Hospital-Plymouth | 0.0% | 27.0% | 2.1% |
| Beverly Hospital | 0.0% | 26.0% | 2.0% |
| Boston Medical Center | 1.7% | 25.1% | 2.2% |
| Brigham and Women's Hospital | 4.8% | 27.2% | 4.6% |
| Cape Cod Hospital | 4.2% | 25.0% | 2.6% |
| Emerson Hospital | 1.9% | 33.1% | 3.0% |
| Fairview Hospital | 0.0% | 27.1% | 2.3% |
| HealthAlliance-Clinton Hospital | 4.5% | 28.0% | 3.4% |
| Heywood Hospital | 1.3% | 10.8% | 7.8% |
| Holyoke Medical Center | 0.0% | 24.4% | 2.4% |
| Lawrence General Hospital | 0.0% | 27.5% | 3.6% |
| Lowell General Hospital-Main Campus | 0.2% | 28.7% | 3.4% |
| Morton Hospital | 0.0% | 30.4% | 4.3% |
| St. Vincent Hospital | 1.2% | 33.5% | 4.9% |
| Sturdy Memorial Hospital | 0.0% | 22.8% | 8.5% |
| U Mass Memorial Medical Center - Memorial Campus | 1.3% | 25.4% | 2.9% |
| Winchester Hospital | 0.0% | 29.4% | 3.1% |

| | Early Elective Deliveries | C Section | Episiotomy |
|--------------------------|---------------------------|----------------|---------------|
| Leapfrog Standard | ≤ 5.0% | ≤ 23.9% | ≤ 5.0% |

Fully Met One Standard (10 Hospitals)

| | | | |
|---|------|-------|-------|
| Falmouth Hospital | 0.0% | 37.5% | 7.7% |
| Hallmark Health System | | | |
| Melrose-Wakefield Hospital | 0.0% | 27.0% | 8.2% |
| Holy Family Hospital | 2.2% | 35.9% | 6.3% |
| Milford Regional Medical Center | 0.0% | 29.4% | 14.2% |
| Newton-Wellesley Hospital | 1.6% | 27.8% | 9.0% |
| Norwood Hospital | 0.0% | 28.5% | 9.7% |
| South Shore Hospital | 1.0% | 28.8% | 6.2% |
| St. Elizabeth's Medical Center | 3.2% | 26.2% | 9.4% |
| Steward Good Samaritan Medical Center, Inc. | 0.0% | 28.0% | 7.2% |
| Tufts Medical Center | 8.3% | 26.3% | 4.8% |

KEY

| | |
|----------------------|-------------------|
| Fully Meets Standard | Some Progress |
| Substantial Progress | Willing to Report |

Six of 36 reporting Massachusetts acute care hospitals fully met all three Leapfrog standards for reducing unnecessary maternity care.

Source: The Leapfrog Group Hospital Survey. The Leapfrog Hospital Survey is based on voluntary hospital reporting and does not include data from all Massachusetts Hospitals.

Notes: All payers, all ages. See [technical appendix](#) for information on Leapfrog's standards and scoring methodologies. A hospital is "Willing to Report" if it provided data for a measure to Leapfrog but has not demonstrated progress according to Leapfrog's scoring methodology. Surveys are submitted on a rolling basis and reflect a 12-month data period. Depending on submission date, scores shown here may have been calculated using data between 1/1/17-12/31/17, or between 7/1/17-6/30/18.

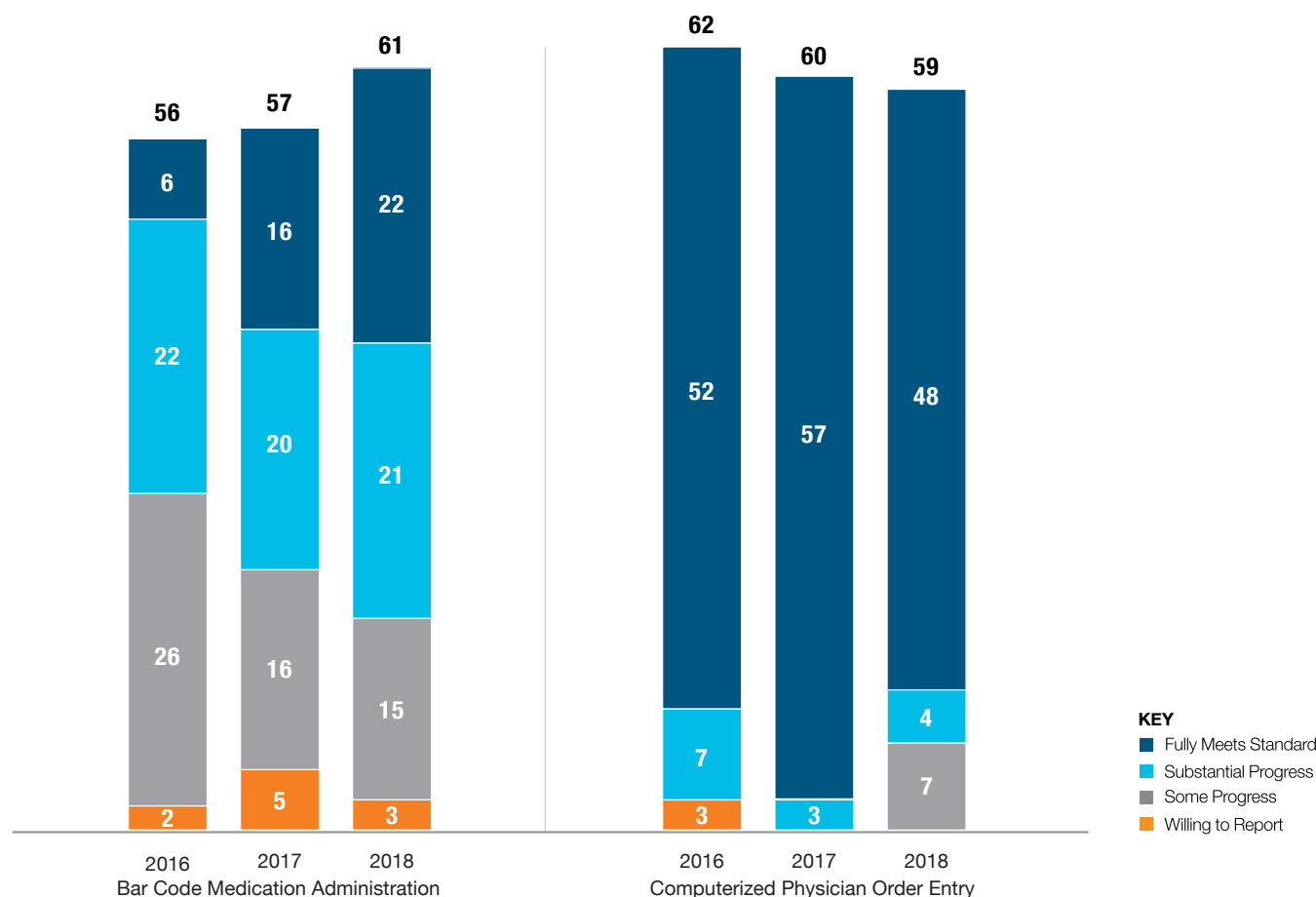
Quality of Care in the Commonwealth

Medication errors are a common source of harm for patients in hospitals. The Leapfrog Group (Leapfrog) sets standards to mitigate these problems, which include the more consistent use of both bar code medication administration (BCMA) and computerized physician order entry (CPOE) systems.

In 2018, an increasing share of reporting hospitals fully met Leapfrog's standard for BCMA, which involves matching a patient-specific barcode and the medication's barcode prior to administering a drug. Leapfrog's standard calls for BCMA systems in 100% of medical, surgical, and intensive care units.

A smaller proportion of hospitals met the CPOE standard in 2018 compared to 2017. To fully meet the 2018 Leapfrog standard for CPOE, at least 85% of medication orders must be entered electronically into a system that identifies at least 60% of common prescribing errors, such as drug interactions, allergies, and incorrect dosage prescriptions. This standard is more stringent than the 2017 standard.¹

Number of Hospitals Meeting Leapfrog Standards for Implementing Interventions to Improve Medication Safety, 2016-2018



In 2018, 22 of 61 reporting hospitals fully met the BCMA standard, and 48 of 59 reporting hospitals fully met the standard for CPOE.

Source: The Leapfrog Group Hospital Survey. The Leapfrog Hospital Survey is based on voluntary hospital reporting and does not include data from all Massachusetts hospitals.

Notes: All payers, all ages.

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Health care-associated infections are reported as a Standard Infection Ratio (SIR), which compares the number of actual infections in a hospital to the number of predicted infections.

In 2018, more hospitals performed better than predicted on the measure of Clostridium difficile (C. difficile) than in 2017. However, on measures of catheter-associated urinary tract infections (CAUTI), central line-associated blood stream infections (CLABSI), methicillin-resistant Staphylococcus aureus (MRSA), and Surgical Site Infections (SSI): Colon Surgery, fewer hospitals performed better than predicted in 2018 than in 2017.

Most reporting hospitals performed as predicted in both 2017 and 2018. Five out of 48 reporting hospitals had worse-than-predicted rates of CAUTI, but for all other measures, no more than one hospital performed worse than predicted in 2018.

Incidence of Health Care-Associated Infections, Relative to Hospital-Specific Predictions, 2017-2018

| | | BETTER | NO DIFFERENT | WORSE | Total Number of Reporting Hospitals |
|--------------------|------|--------|--------------|-------|-------------------------------------|
| C. difficile | 2017 | 14 | 38 | 4 | 56 |
| | 2018 | 17 | 37 | 1 | 55 |
| CAUTI | 2017 | 8 | 36 | 4 | 48 |
| | 2018 | 5 | 38 | 5 | 48 |
| CLABSI | 2017 | 7 | 34 | | 41 |
| | 2018 | 5 | 35 | 1 | 41 |
| MRSA | 2017 | 8 | 28 | 1 | 37 |
| | 2018 | 5 | 33 | 1 | 39 |
| SSI: Colon Surgery | 2017 | 3 | 35 | 3 | 41 |
| | 2018 | 2 | 41 | 1 | 44 |
| SSI: Hysterectomy | 2017 | | 7 | 1 | 8 |
| | 2018 | | 10 | | 10 |

While results improved slightly for C. difficile, for all other measures there were fewer hospitals in 2018 that performed better than expected.

Source: CMS Hospital Compare.

Notes: SIR predictions are based on historical data and adjusted based on factors known to impact infection rates, such as patient characteristics, facility size, and facility type. CMS refers to a SIR of 1.0 as the national benchmark. "Better," "No Different," and "Worse" represent how hospitals performed relative to their predicted infection value. 2017 data reflects performance from July 2016 through June 2017. 2018 data reflects performance from July 2017 through June 2018.

Quality of Care in the Commonwealth Notes

- 1 The Leapfrog standard for CPOE changed from 2017 to 2018. To fully meet the standard in 2017, at least 75% of medication orders had to be entered electronically into a system that identifies at least 50% of common prescribing errors. In 2018, at least 85% of medication errors had to be entered electronically into a system that identifies at least 60% of common prescribing errors. Furthermore, a hospital that has met the 85% threshold but did not complete an Adult Inpatient Test of the CPOE Evaluation Tool to assess whether the hospital's system is alerting prescribers to at least 60% of common errors would not fully meet the standard.

Glossary of Terms

Accountable Care Organizations (ACOs): Groups of health care providers that contract with a payer to assume responsibility for the delivery of care to its attributed patients, and for those patients' health outcomes.

Administrative Services-Only (ASO): Commercial payers that perform administrative services for self-insured employers. Services can include plan design and network access, claims adjudication and administration, and/or population health management.

Advance Premium Tax Credit (APTC): Federal tax credits available to those with incomes below 400% of the Federal Poverty Level (FPL) who enrolled in plans sold on the Health Connector. Credits may either be applied directly to premiums to lower the member's monthly payments or may be paid in a lump sum as a part of the member's tax return. APTC amounts are calculated by comparing the individual's income to the cost of the second cheapest silver tier plan available to them. If the cost of that plan exceeds a specified percent of the member's income, the federal government pays the difference in APTCs.

Alternative Payment Methods (APMs): Payment methods used by a payer to reimburse health care providers that are not solely based on the fee-for-service basis.

Benefit Level: A measure of the proportion of covered medical expenses paid by insurance. Benefit levels may be estimated by several different methods; for the method used in this report, see [technical appendix](#).

ConnectorCare: A type of qualified health plan (QHP) offered through the Health Connector with lower monthly premiums and cost-sharing for those with household incomes at or below 300% of the Federal Poverty Level (FPL).

Cost-Sharing: The amount of an allowed claim that the member is responsible for paying. This includes any copayments, deductibles, and coinsurance payments for the services rendered.

Cost-Sharing Reduction (CSR) Subsidies: Payments made by the federal government and/or the Commonwealth of Massachusetts directly to ConnectorCare payers to lower copayments and eliminate deductibles and coinsurance in ConnectorCare plans.

Employer-Sponsored Insurance (ESI): Health insurance plans purchased by employers on behalf of their employees as part of an employee benefit package.

Fully-Insured: A fully-insured employer contracts with a payer to pay for eligible medical costs for its employees and dependents in exchange for a pre-set annual premium.

Glossary of Terms (continued)

Funding Type: The segmentation of health plans into two types—fully-insured and self-insured—based on how they are funded.

Group Insurance Commission (GIC): The organization that provides health benefits to state employees and retirees in Massachusetts.

Health Care Cost Growth Benchmark (Benchmark): The projected annual percentage change in Total Health Care Expenditure (THCE) measure in the Commonwealth, as established by the Health Policy Commission (HPC). The benchmark is tied to growth in the state's economy, the potential gross state product (PGSP). The benchmark for 2018 is equal to the PGSP minus 0.5%, or 3.1%.

Health Connector: The Commonwealth's state-based health insurance marketplace where individuals, families, and small businesses can purchase health plans from insurers.

High Deductible Health Plan (HDHP): As defined by the IRS, a health plan with an individual plan deductible exceeding \$1,300 for 2016 and 2017 and \$1,350 for 2018.

Health Maintenance Organizations (HMOs): Insurance plans that have a closed network of providers, outside of which coverage is not provided, except in emergencies. These plans generally require members to coordinate care through a primary care physician.

Limited Network: A health insurance plan that offers members access to a reduced or selective provider network, which is smaller than the payer's most comprehensive provider network within a defined geographic area and from which the payer may choose to exclude from participation other providers who participate in the payer's general or regional provider network. This definition, like that contained within Massachusetts Division of Insurance regulation 211 CMR 152.00, does not require a plan to offer a specific level of cost (premium) savings in order to qualify as a limited network plan.

Managing Physician Group Total Medical Expenses: Measure of the total health care spending of members whose plans require the selection of a primary care provider associated with a physician group, or who are attributed to a primary care provider pursuant to a contract between a payer and provider, adjusted for health status.

Market Sector: Average employer or group size segregated into the following categories: individual purchasers, small group (1-50 employees), mid-size group (51-100 employees), large group (101-499 employees), and jumbo group (500+ employees). In the small group market segment, only those small employers that met the definition of "Eligible Small Business or Group" per Massachusetts Division of Insurance Regulation 211 CMR 66.04 were included; otherwise, they were categorized within mid-size.

Glossary of Terms (continued)

Medical Loss Ratio (MLR): As established by the Division of Insurance: the sum of a payer's incurred medical expenses, their expenses for improving health care quality, and their expenses for deductible fraud, abuse detection, and recovery services, all divided by the difference of premiums minus taxes and assessments.

Merged Market: The combined health insurance market within which both individual (non-group) and small group plans are purchased.

Net Prescription Drug Spending: Payments made to pharmacies for members' prescription drugs less rebates received by the health plan from manufacturers.

Percent of Benefits Not Carved Out: The estimated percentage of a comprehensive package of benefits (e.g., pharmacy, behavioral health) that are accounted for within a payer's reported claims.

Point-of-Service (POS): Insurance plans that generally require members to coordinate care through a primary care physician and offer both in-network and out-of-network coverage options.

Preferred Provider Organizations (PPOs): Insurance plans that identify a network of "preferred providers" while allowing members to obtain coverage outside of the network, though to typically higher levels of cost-sharing. PPO plans generally do not require enrollees to select a primary care physician.

Premiums, Earned: The total gross premiums earned prior to any medical loss ratio rebate payments, including any portion of the premium that is paid to a third party (e.g., Connector fees, reinsurance). Includes Advance Premium Tax Credits, where applicable.

Premiums, Earned, Net of Rebates: The total gross premiums earned after removing medical loss ratio rebates incurred during the year (though not necessarily paid during the year), including any portion of the premium that is paid to a third party (e.g., Connector fees, reinsurance).

Premium Retention: The difference between the total premiums collected by payers and the total spent by payers on incurred medical claims.

Prescription Drug Rebate: A refund for a portion of the price of a prescription drug. Such refunds are paid retrospectively and typically negotiated between the drug

Glossary of Terms (continued)

manufacturer and pharmacy benefit managers, who may share a portion of the refunds with clients that may include insurers, self-funded employers, and public insurance programs. The refunds can be structured in a variety of ways, and refund amounts vary significantly by drug and payer.

Prevention Quality Indicators: A set of indicators that assess the rate of hospitalizations for “ambulatory care sensitive conditions,” conditions for which high quality preventive, outpatient, and primary care can potentially prevent complications, more severe disease, and/or the need for hospitalizations. These indicators calculate rates of potentially avoidable hospitalizations in the population and can be risk adjusted.

Product Type: The segmentation of health plans along the lines of provider networks. Plans are classified into one of four mutually exclusive categories in this report: Health Maintenance Organizations, Point-of-Service, Preferred Provider Organizations, and Other.

Qualified Health Plans (QHPs): A health plan certified by the Health Connector to meet benefit and cost-sharing standards.

Risk Adjustment: The Affordable Care Act program that transfers funds between payers offering health insurance plans in the merged market to balance out enrollee health status (risk).

Self-Insured: A self-insured employer takes on the financial responsibility and risk for its employees’ and employee-dependents’ medical claims, paying claims and administrative service fees to payers or third party administrators.

Standard Quality Measure Set (SQMS): The Commonwealth’s Statewide Quality Advisory Committee recommends quality measures annually for the state’s Standard Quality Measure Set. The Committee’s recommendations draw from the extensive body of existing, standardized, and nationally recognized quality measures.

Tiered Network Health Plans: Insurance plans that segment their provider networks into tiers, with tiers typically based on differences in the quality and/or the cost of care provided. Tiers are not considered separate networks, but rather sub-segments of a payer’s HMO or PPO network. A tiered network is different than a plan simply splitting benefits by in-network vs. out-of-network; a tiered network will have varying degrees of payments for in-network providers.

Glossary of Terms (continued)

Total Health Care Expenditures (THCE): A measure of total spending for health care in the Commonwealth. Chapter 224 of the Acts of 2012 defines THCE as the annual per capita sum of all health care expenditures in the Commonwealth from public and private sources, including (i) all categories of medical expenses and all non-claims-related payments to providers, as included in the health status adjusted total medical expenses reported by CHIA; (ii) all patient cost-sharing amounts, such as deductibles and copayments; and (iii) the net cost of private health insurance, or as otherwise defined in regulations promulgated by CHIA.

Total Medical Expenses (TME): The total medical spending for a member population based on allowed claims for all categories of medical expenses and all non-claims related payments to providers. TME is expressed on a per member per month basis.

Index of Acronyms

| | | | |
|---------------|--|---------------|--|
| ACA | Affordable Care Act | HSA | Health Status Adjusted |
| ACO | Accountable Care Organization | HSN | Health Safety Net |
| APM | Alternative Payment Method | IRS | Internal Revenue Service |
| APTC | Advance Premium Tax Credit | MA | Massachusetts |
| BCBSMA | Blue Cross Blue Shield of Massachusetts | MACIPA | Mount Auburn Cambridge IPA |
| BCMA | Bar Code Medication Administration | MCO | Managed Care Organization |
| BIDCO | Beth Israel Deaconess Care Organization | MGL | Massachusetts General Law |
| BMCHP | Boston Medical Center HealthNet Plan | MLR | Medical Loss Ratio |
| CAUTI | Catheter-Associated Urinary Tract Infection | MMCO | MassHealth Managed Care Organization |
| CHIA | Center for Health Information and Analysis | MRSA | Methicillin-Resistant Staphylococcus Aureus |
| CLABSI | Central Line-Associated Blood Stream Infection | NCPHI | Net Cost of Private Health Insurance |
| CMS | Centers for Medicare & Medicaid Services | NEQCA | New England Quality Care Alliance |
| CPOE | Computerized Physician Order Entry | PACE | Programs of All-Inclusive Care for the Elderly |
| CSR | Cost-Sharing Reduction | PBM | Pharmacy Benefit Managers |
| EPO | Exclusive Provider Organization | PCC | Primary Care Clinician |
| ESI | Employer-Sponsored Insurance | PCP | Primary Care Provider |
| FFS | Fee-for-Service | PES | Patient Experience Survey |
| FI | Fully-Insured | PMPM | Per Member Per Month |
| FPL | Federal Poverty Level | POS | Point-of-Service |
| GIC | Group Insurance Commission | PPO | Preferred Provider Organization |
| HDHP | High Deductible Health Plan | SCO | Senior Care Options |
| HMO | Health Maintenance Organization | SFY | State Fiscal Year |
| HNE | Health New England | SHCE | Supplemental Health Care Exhibit |
| HPHC | Harvard Pilgrim Health Care | SI | Self-Insured |
| HPI | Health Plans, Inc. | SIR | Standard Infection Ratio |

Index of Acronyms (continued)

| | |
|-------------|--------------------------------|
| SSI | Surgical Site Infection |
| SQMS | Standard Quality Measure Set |
| THCE | Total Health Care Expenditures |
| THP | Tufts Health Plan |
| THPP | Tufts Health Public Plans |
| TME | Total Medical Expenses |
| VA | Veterans Affairs |



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